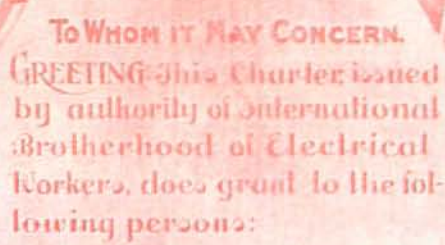


NOV 1905



and to their ever-ready power to establish and build a
House of the Brotherhood, both local and
remote, available here as Union
No. 1 of the Independent Brotherhood of
England. The first Chapter given to such House
and process originated in the Constitution.

The members of the House are such that it may be national as long as
some. Each is a good citizen, a good man, and the representative of the
Brotherhood and Union. Each of the Independent Brotherhood of
England, each of the members of the national Union, House.

The House of the Brotherhood is a house of the Brotherhood and the House of the Brotherhood
House, the day of the Brotherhood, the Brotherhood, the Brotherhood.



ALLEN Soldering Paste is a safe FLUX. Solder will follow every twist if ALLEN Paste is used—And there'll be no corroding. No fumes. No waste DOES NOT CONTAIN ACID.

At your dealers say, "ALLEN OR NOTHING."

L. B. ALLEN CO., INC. SOLE MFRS.
1324 Columbia Ave., 97z Warren St.,
CHICAGO NEW YORK

THE
Chesapeake & Potomac
Telephone Company
OPERATING IN
Maryland,
The District of Columbia,
and Adjacent Counties of
West Virginia.

A Comprehensive System.
An Efficient Service.
A Reasonable Rate Plan.

PEANUT MAN DOW ADJUSTER MAN



WHICH WILL YOU BE ?

THE ONLY WAY

to properly dispose of THOSE DANG-
LING CORDS over your desk is in a
DOW ADJUSTER. THE CORD
IS ALL ROLLED UP OUT OF SIGHT. It
works just like a CURTAIN. You can
stop it where you want it. Don't
waste time and temper with "pea-
nuts." Order 1 or 1,000 and show
them to your customers. There's
money in it

Marshall Electric Manufacturing Co.
301 Congress St. BOSTON, MASS.

A M E R I C A N

is the Best Electric Wire Conduit



- Mild steel tubing of standard diameter and thickness of wall; lengths uniformly 10 feet, threaded right hand and fitted one end with standard right hand coupling; ends reamed and interior surface thoroughly cleaned free from scale and burrs.
- The elastic enamel coating applied in 3 coats to both outside and inside surfaces prevents oxidation by exposure to moisture, acids or alkalis and will stand a high degree of heat.

American Conduit Mfg. Co.,
524 FOURTH AVE., PITTSBURG, PA.

NOV 1905

"The 'HEADLIGHT' is certainly the ideal Overall for a Railroad man."-L. METCALF, Engineer "Katy Flyer."
"You express my sentiments exactly, shake."-J. H. KENT, Fireman "Katy Flyer."

L. METCALF,
Engineer,
"Katy Flyer."



J. H. KENT,
Fireman,
"Katy Flyer."




WOOTTON & HAYES,
Exclusive Agents, DENISON, TEXAS

Catalogue and Time Book Sent Free
LARNED, CARTER & CO., DETROIT, MICH.

NOV 1905

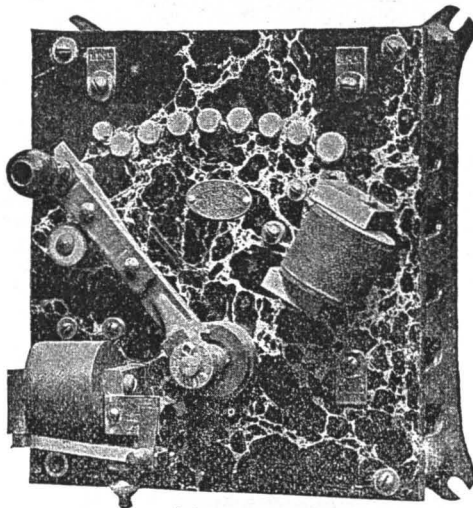
The World's Standard



Columbia Dry Cells

Send for Catalogue

C.=H. Overload Motor Starters



The Cutler-Hammer overload motor starters are equipped with an overload release magnet in addition to the no-voltage release magnet, which can be set for any flow of current not in excess of 50 per cent above the rated capacity of the motor. It can also be used to determine the amount of current being consumed by the motor : : : : Our Bulletin No. 20 describes this type of starter, which is made in sizes of one-half to 50-H. P. and for all standard voltages : : ; : : : :

THE CUTLER-HAMMER MFG. CO.

MILWAUKEE, WIS.

NEW YORK

BOSTON

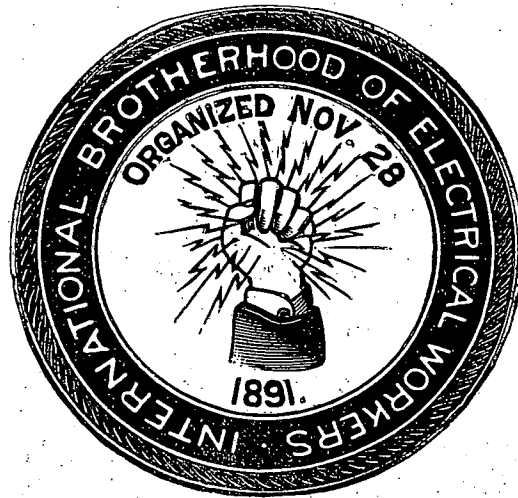
PITTSBURG

CHICAGO

NDV 1905
9.3

THE

ELECTRICAL



WORKER

OFFICIAL JOURNAL OF THE INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS

OWNED AND PUBLISHED BY
The International Brotherhood of Electrical Workers

Edited by PETER W. COLLINS, Grand Secretary
General Offices, 509 Corcoran Building,
Washington, D. C.

NOV 1905
P. 4

NO

INDEX

NOV 1905
P. 5

THE ELECTRICAL WORKER

OFFICIAL JOURNAL OF THE INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS

Entered at the Post Office at Washington, D. C., as Second-Class Matter.

Vol. VI. No. 1.

WASHINGTON, D. C., NOVEMBER, 1905.

Single copies, 10 cents
\$1 per year in advance



General Officers' Reports



GRAND PRESIDENT

THE greater part of my time since the close of our convention has been consumed with the routine business. I have been in New York city several times on matters of importance.

I spent three days in Wilkesbarre, Pa., where I was called by Grand Vice-President O'Connell, who is in charge of the difficulty existing in that city and Scranton, Pa., between Local Unions No. 81, No. 163 and the Public Service corporations. Settlements have been reached with the Traction Companies of Scranton and the Traction Company of Wilkesbarre. The telephone companies of both cities and the light company of Wilkesbarre have refused, up to the present writing, to grant any concessions, and are endeavoring to import men to fill the places of our men, offering them all kinds of inducements, in order to defeat the efforts of both locals to better the conditions of their members.

All members of the Brotherhood should do everything in their power to prevent men from going to Wilkesbarre or Scranton until such times as an adjustment of the difficulty is reached.

There are over one hundred men involved, every one of them as deter-

mined to win to-day as he was in the beginning, five weeks ago.

FIRST VICE PRESIDENT

According to the instructions of the Convention, that the Grand President and incoming First Grand Vice President proceed to Washington and audit the books and to employ an expert if necessary, and as an itemized and full report of our work will be submitted to the locals of the Brotherhood, I will not touch on it in this report. While at Washington, Bro. McNulty was called to New York on important business, and there being urgent calls for executive officers from many cities at that time, our Grand President sent me to Cumberland, Md., to strengthen our local there.

I left Washington, and arrived at Cumberland, Md., on Saturday, October 14th. On Sunday, the 15th, received two applications. On the 17th went to Eckard, Md., and returned the same evening. On the 18th addressed the regular meeting and presented nine applications, and examined their books and found them in good condition, the only trouble apparent being the lack of attendance at meetings;

NOV 1905

but otherwise Local No. 307 is in good condition.

Thursday, the 19th, left Cumberland, Md., for Washington to finish work ordered by Convention. Stayed at General Office until the 24th. Arrived at Altoona, Pa., organized a local of seventeen members, and left Altoona for Erie en route to Meadville on Saturday, the 28th. Had to lay over for train connection at Pittsburgh, Pa., so used the time in visiting the inspector of the Gamewell Fire Alarm Company, accompanied by Bro. Sam Young, business agent of Local No. 14, in the interest of the I. B. E. W.

I left Pittsburgh on the same evening and went to Meadville, Pa. On arriving there found our local had gone out of existence owing to the town not being large enough to maintain a local. I returned the books and seal to the General Office and transferred the remaining members to the nearest local. I left Meadville, Pa., October 31st for Buffalo, N. Y.

Fraternally,

J. J. REID,

First Grand Vice President.
Erie, Pa., Nov. 1, 1905.

SECOND VICE PRESIDENT

I herewith submit the following brief report for the month of October:

Arriving in Boston on the 2d, I immediately got to work on the agreement with the committee of Local No. 103. We were obliged to appear before the State Board of Conciliation and Arbitration on three different occasions before we got one article in question settled. We worked among the contractors to obtain their signatures, and on the 11th, at regular meeting, it was voted that unless all firms signed on the week ending October 14th that our men would cease work in all shops where the agreement was not signed.

We held special meeting on the 15th and produced ten signed agreements,

which were ratified. The best and largest firms in the city had acquiesced to our terms. Monday morning our hall was well filled with men who were determined to stand by the cause. Three more firms signed before the end of that week. Many "nons" came from other places, and we succeeded in getting several of them to join our ranks, while many others remained with the "bosses," as some of them were carried to their work in public conveyances. This privilege is one that will naturally be of short duration, as the expense must come out of the hide of the modern hero in due course of time. It will not take them long to discover some day that they were paying for the great courtesies extended.

We have a good system of picket duty established and are making some progress in other directions that I do not need to mention at this time. On October 30 we got one more firm to sign.

I have been badly crippled since the 21st with a lame arm and can hardly hold a pen to write with; but I have reported every day to the Grand President through the assistance of some of the members of No. 103.

During the month we succeeded in getting the inside telephone men to come together, and a meeting was held on the 17th and a charter was applied for, and on the 26th we organized with sixty-four members, and many others are expected to join the ranks before the quarter closes. I feel safe in saying that we are going to have a good, live, healthy organization in addition to those already organized in the city of Boston. We have endeavored for a long time to bring these men together, and I am pleased to state there is little doubt but that the members of new Local No. 30 will keep to the front, as they are a good, conservative body of men, who are built on the lines of building up and not tearing down.

On the 23d I went to Portland, Me., and paid a visit to Local No. 399. We

NOV 1905

had the largest attended meeting for some time on the 24th, and arrangements were made to hold an open meeting in the near future. I returned to Boston again on the 25th. On the 30th I attended meeting of Local No. 377, at Lynn, Mass., where they are presenting a new agreement to the contractors. While there I received a telegram from the Grand President to come to New York. I left on the midnight train and met Grand President McNulty and Grand Vice President O'Connell next morning. We attended some very important conferences on October 31 and November 1, which the Grand President will report on some time later.

The situation in Boston is well in hand at present writing; we are holding our own and gaining little by little, we are bound to win. I would advise all members of the I. B. E. W. to keep away from this city until this trouble is over, as we have our hands full at the present time to care for our own members. I am giving all the time I possibly can to Local No. 103 and hope now to be able to give better service since my arm is getting into shape again. While I have gone through some painful suffering, I have lost no time, but stuck to my work night and day, doing all that I possibly could. Yours fraternally,

E. T. MALLORY,

Second Grand Vice President.
Boston, Mass., Nov. 2, 1905.

THIRD VICE PRESIDENT

After the close of the convention I went to Terre Haute, Ind., where Local No. 25 was having some trouble with the C. U. Tel. Co. Arriving there, I attended meeting of No. 25, and was informed they had placed the construction department on the unfair list and left the maintenance fair. I also found out there was a verbal agreement between the manager in that city and Local No. 25 which did not expire until next June. I ruled that a company could not be

fair in one department and unfair in another and requested Local No. 25 to remove the company from the unfair list and that a committee be appointed to go with me to see Mr. Cline and try to adjust the grievance. This was done, and with committee we made two trips to Indianapolis to see Mr. Cline. His reply to our request for \$2.75 for nine hours or \$2.50 straight time was that the C. U. Tel. Co. has a wage scale in Indiana, Illinois and Ohio, and they were doing new work in several places without any complaint from any of the men, only in Terre Haute, and he did not propose to make any change there; but if the local in that city thought it was in a position to do so to go ahead. At meeting of Local No. 25 on Tuesday, the 17th, it was decided to let the C. U. Tel. Co. on the fair list, so any of our members could work on the job.

While waiting for the second meeting with Mr. Cline, I visited Local No. 243 of Vincennes, and found it in good condition. From Vincennes to Washington, Ind., where I found most of the members of Local No. 371 were working out of the city, and I called on and had a talk with all that were left, advising them in regard to the new constitution. From Washington to Princeton, where Local No. 269 had met with same reverses on account of an ex-member, but were now getting along first-rate.

From Terre Haute to Springfield, Ohio, where Local No. 204 some months before had presented a wage scale and agreement to the telephone companies, which was accepted and signed by the Independent but was refused by the C. U. Tel. Co. Arriving in Springfield, I was informed that Local No. 204 had taken its grievance before the Central Trades Council and that it had appointed a committee to go with the committee from Local No. 204 to see the manager of the C. U. Tel. Co. When the committee called on the manager, he agreed to, and did, advance the men \$5.00 per month, but would not sign any agree-

ment. I attended meeting of Local No. 204 on the 23d, which was well attended, and I also had the pleasure of seeing a new member initiated, and will say it is the best I have seen for some time. I spent a couple of days visiting the ex-members who are working in Springfield, and expect some of them to pay up.

From Springfield to Columbus, where I found No. 446 had sent in its charter the week before. I went to the home of Brother Esmond, of No. 446, to get a statement of how everything stood, and then went to Local No. 54's meeting, which I found had adjourned and the members were enjoying themselves with lunch and refreshments.

From Columbus to Newark, where I found Local No. 172 did not meet until the following week and that no hall could be obtained until Monday night. I then left for Mt. Vernon, promising to be back for meeting Monday night.

Arriving in Mt. Vernon, I found Local No. 97 did not meet until the following Saturday night. I visited all the brothers and found out all the men located in that city working at the business are in or have applications in and that Local No. 97 is getting along good.

From Mt. Vernon back to Newark; visited the men working on new construction for the C. U. Tel. Co. and found several ex-members, a couple of whom will straighten up, if not all of them. At night attended special meeting of Local No. 172, at which one new member was received.

From Newark to Zanesville, where I met a couple of the members of No. 160; but when I went to the hall for a meeting found only one member there.

Respectfully yours,

E. P. ALLMAN,

FOURTH VICE PRESIDENT

On the 1st of October I came to the General Office after the convention, and as the inside men at Norfolk, Va.,

had made a demand on the electrical contractors of that city for an advance in wages and other working conditions, I was instructed by the Grand President to go to Norfolk. After looking over the situation and holding a meeting of No. 80, I called upon the president of the contractors' association and asked for a meeting, which was granted for the 12th of October. Myself and committee met them, and after debating all points thoroughly we came to no understanding. They agreed to give the 50 cents raise in pay, but stated they would not give the closed shop. I told them we would give them until the 17th to grant the closed shop, which they failed to do, and on the 18th all men came out, not losing a man. So the contractors held a meeting the morning of the 19th and sent for the committee and myself to meet them at 4 p. m. that day, and at 1:30 a. m. the following morning we came to a settlement, with No. 80 getting what it went out for; so the men returned to work that morning.

While in Norfolk, Bro. James Kirby, general president of the Structural Building Trades Alliance; Bro. Griffin, general organizer for the carpenters, and myself held three meetings with the Board of Governors of the Jamestown Exposition and finally succeeded in getting a closed shop on the exposition grounds, which will open on May 1, 1907, and close November 1, 1907. The contracts for buildings will have a clause in them stating that nothing but organized labor will be employed. The work will start on the buildings the 1st of December, 1905, but there will be no electrical work for some time, so I hope the rank and file will not go there until future notice.

On the 24th I attended the regular meeting of No. 165 at Newport News, Va. Had a good meeting. No. 165 is in good shape now, having almost all the men out of the shipyards now.

On the 26th went to Richmond, Va., to attend an open meeting there of the inside wiremen for the purpose of organizing the inside men into a sepa-

NOV 1905

NOV 1905

rate local. We were successful in getting a charter and hope to have a good local there of inside men.

On the 28th I went to Washington, D. C., to meet Mr. Gentry of the Southern Bell Telephone Company, but he had notified Bro. McNulty that it would be impossible for him to be there until the 9th of November; so we will meet him on that date.

I received a telegram that there was trouble on in Charleston, W. Va., and Charleston, S. C., so I left at once for Charleston, W. Va. There the men had been getting straight time and they were short last pay day and asked about it, and all men were layed off except the trouble chasers. A committee and myself met the manager and the men were returned to work and get straight pay.

On the 31st I held an open meeting of No. 256, with very good attendance, and received a number of applications. Left on night train for the General Office.

Fraternally submitted,

DALE SMITH,

SIXTH VICE PRESIDENT

I left Louisville, Ky., on October 1 for Little Rock, Ark. I had to stop over in St. Louis two days on some business and arrived in Little Rock on the 5th. I attended special meeting of Local No. 126 and worked on the telephone men while there. The Bell company is doing a big job there at present and I think the local has a chance to land a good part of the bunch if my instructions are followed. From there I went to Pine Bluff, Ark., finding Local No. 251 in good condition and getting in new members right along. I went from there to Fort Smith, Ark., and found conditions there very bad. But I think it is only a short time until the local will be on its feet again, as it has some good workers there now and the largest contractor in the town has given his men orders to get a card if they ex-

pect employment from him; so we are sure of his men. I had an open meeting while there, but the attendance was small.

I went from Fort Smith to Muskogee, I. T.; found things quiet there as most all the boys were on out-of-town work and there was nothing doing there. From Muskogee I went to South McAlester, I. T.; I attended the regular meeting of Local No. 220; they having a good local and doing fine.

I then went to Shawnee, I. T., to see if there was any chance to reorganize the local there. I was surprised on arriving there to find that they had just organized and had received their charter a few days before and had a local with a nice membership. I called a meeting, gave them a talk, and instructed them as to the running of the local, and made out list of books and supplies they would need.

Leaving Shawnee, I went to Oklahoma City, where I attended regular meeting of Local No. 155. I intended to get into Local No. 456's meeting, as its members met in the same building; but they finished early and came into Local No. 155's meeting. Both locals had good attendance. Local No. 155 initiated two new members, and the work of their team would be a credit to any organization.

I went from Oklahoma City to Chickasha, I. T., to see if there was any chance to reorganize the local there; but there were only four men in the town.

I went from there to Pauls Valley, I. T., but failed to find enough men working at the business there to support a local. I then came to Ardmore, I. T., and attended meeting of Local No. 406 last night. Ardmore is well organized and has a good local.

With best wishes to all members of the Brotherhood, I remain,

Yours fraternally,

J. P. CONNOR,

Sixth Grand Vice President.

November 1, 1905.

NOV 1905

SEVENTH VICE PRESIDENT

As I was busy at the convention during the last week of September I did not forward any report for that month to the WORKER, and as the most of the month was consumed at the meeting of the Executive Board and the convention, it is not necessary for me to recount what transpired.

Some months ago, when I was at Salt Lake City with Bro. Mead, of Local No. 316, of Ogden, to get their wage scale signed up, I took up the conditions in the State of Wyoming with Mr. Sommers, the general superintendent of the Rocky Mountain Bell Telephone Company. The company has been paying \$3 per day for journeymen in exchange work, and as we had recently signed up for a toll line scale for the whole of the system, I requested that they raise the wages in the Wyoming exchanges to the Ogden and Salt Lake scale. He at that time said there were places in Wyoming in which they did not have enough business to pay the scale, but expressed a willingness to pay where business would justify it, and as he had only been filling the position of general superintendent a short time, he did not feel like saying just who should receive it; and as I was not familiar with conditions in that state he agreed to refer the matter to the members of Local No. 415, of Cheyenne, and Superintendent Vance.

I called up Bro. D. Gallivan on the 'phone and told him what had transpired. Mr. Vance at the time, I was informed, was on a vacation and was attending the fair at Portland, Ore. It was understood that the matter would be taken up as soon as he got back. Not having heard from them, I dropped into Cheyenne on my way to the convention, and to my surprise found that nothing had been done. I tried to get a meeting with Mr. Vance, but was not able to do so, as he had left town. I then requested that a committee from the local take it up with him when he arrived. While there, I called up Mr. Sommers on the

'phone, and he informed me that he had not heard from Mr. Vance about the matter. I then called up Salt Lake and again Mr. Sommers requested to ask the boys to ask Mr. Vance to call him up when he returned. On my return from the convention, I stopped over in Salt Lake City for eight hours and called on Mr. Sommers in regard to the boys in Wyoming, and again received the same answer—that he had heard nothing.

While I was there he called up Mr. Vance and asked him if anything had been done towards raising the wages of the men, and was told that there had not. He was asked if the men had talked with him about it. He replied that they had not. Mr. Sommers informed him that I was in their office with him and that I said he had had a talk with his own brother, who was a member of the local, about it. To this he answered he had had some talk with him, but no request had been made. He was then told to take the matter up with Bros. Gallivan and Read and get a signed-up agreement for Cheyenne and Sheridan. He was advised to keep as close to Salt Lake scale as possible.

On my arrival in San Francisco I telegraphed to Bro. Gallivan, informing him what had taken place, and requesting that they write and let me know what the results would be. I have not heard from there as yet.

I arrived in San Francisco on the 6th of October and found that everybody had gone mad on politics. You delegates who were at the convention would have been surprised if you were here to see how active those fellows who were around the corridors of the Galt House accusing your humble servant of being a politician became as soon as they arrived in the city by the Golden Gate.

I am sorry to have to say at this time that I also found on my arrival that the business agent of Local No. 6 was trying to strike jobs on the members of the Outside Local No. 151 and Local 404, the Fixture Hangers.

NOV 1905

THE ELECTRICAL WORKER.

11

Since I arrived, this has stopped, and I am in hopes will not occur again.

Local No. 151 had some differences with the Burglar Alarm people about this time and the matter was referred to me to adjust. I, in company with a committee from the local, took the matter up with Mr. Maddox, who is the superintendent for the A. D. T. and the Burglar Alarm. At the time we took the question up we understood that he had power to settle for his company, but were informed, after we had talked on it for some time, that such was not the case. Mr. Miller, the general manager, being out of town, the question was hung up until his return.

I received a telegram from the president and business agent of Local No. 125, of Portland, Ore., about this time stating that trouble was anticipated with the Empire Electric Company, a contracting firm which was about to start to build that city for the Home Telephone Company, and I left for there on the next train. On arriving there I found that the local had signed up an agreement with those parties which I, after looking over, would not approve. There was a joker in it and the company had started to take advantage of it. The company took the

stand that according to the agreement which was drawn up that subforemen were not compelled to join the local. I immediately took issue with them and declared the agreement which was drawn up null and void. Our conference broke up at the time with the understanding that all agreements were off. I then went, in company with Bro. Heales, to the Postal Telegraph Company and sent a telegram to Bro. T. R. Sullivan, of Local No. 151, who took the matter up with the head office of the Home Telephone Company, in San Francisco. Two days after that I met Mr. Godfrey, secretary-treasurer of the Empire Electric Company, on the street and had a conversation with him concerning the mix-up. He agreed to sit down and talk over the situation again.

The next day, Bro. Caulfield, the executive officer of the Pacific Council in Portland, and I called on him and he conceded every point raised by us. So we have added another signed-up agreement to the list in this district. Fraternally yours,

M. J. SULLIVAN,

Seventh Grand Vice President.

San Francisco, Cal., Oct. 30, 1905.

FAKE UNION LABEL ON BROOMS TO DECEIVE UNIONISTS.

The Merkle-Wiley Broom Co., of Paris, Ill., is placing a small round label on the brooms it manufactures, about the same size of the Broom Makers' Union Label, bearing the inscription "Not Prison Made."

This firm has two factories, one at Paris, Ill., run under the name of the Merkle-Wiley Broom Co., and another at Charleston, Ill., known as the Charleston Broom Co.

These factories heretofore were union factories and used the Broom Makers' Union Label, but are now using a fake label to mislead and fool the unsuspecting public.

This firm locked its employes out in

the month of November, 1904, on account of their refusing to submit to an open-shop proposition and a reduction in wages. At the beginning of the lock-out, they filled orders with prison-made brooms, purchased from prison contractors, who employ none but convict labor.

This firm is the largest of its kind in the middle west, and ships brooms into every state in the Union. The Broom Makers have been waging an unceasing boycott against this firm, and they have reduced their output fully one-half, and have interested the American Federation of Labor in their struggle, and have had the firm placed on the "We Don't Patronize" list.

Nov.
1905

Correspondence

No. 246

As No. 246 has been a dead one for the past year, I will try and let the brothers know what is doing around here and what our union has done for us. Four years ago the best price you could get was \$2.00 per day and ten hours, and you had to hustle to get that. At present we have \$70.00 per month for station men, and on one job—the Tri-State Traction Company—\$3.00 per day; and the best part of it is every one is satisfied.

The old war horse, Andy Caverly, late of the Postal Telegraph Company, is one of the hard workers of our local and the best man the Postal company ever had around here, but they let him go because he asked for the measly sum of \$5.00 per month increase.

With the further statement that every one is working, and good prospects ahead, I will close.

Fraternally yours,

E. D. R.

Steubenville, Ohio, Oct. 29, 1905.

No. 69

As conditions in the Lone Star State are prosperous the ELECTRICAL WORKER seems to be getting part of its share. Through lack of interest, and the majority of men working at the trade not being educated to trade unionism, the trade is not what it ought to be. I am not much of a believer in revivals of any kind, but think that a union revival for electrical workers with the aid of a good organizer could change the situation here for electrical workers and help better their condition in many ways. However, it is really up to each individual to make his trade or vocation one of the best on earth or drag it down to

degradation and make it the worst, with no control of the men or others engaged in the business.

With the swiftness of the busy age today, it devolves upon man to choose himself a vocation and stay with it for years and make a success of it—which you can do if you try. If your wages are not sufficient, the hours too long, or your work hazardous or dangerous, it is up to you to help improve the situation and make things better.

Just for a minute we will look at the progress of other trades and vocations which are not near as dangerous and less skill required, no set of rules governing the installation of their work, like electrical workers have, and yet more money is paid them and they have less hours in some cases, and also have laws enacted by the legislature protecting them from unskilled people taking their places without first having passed a state examination and served the required time. In our state not a law has been passed that would protect the electrical worker or raise the standard of skill by requiring a license; not even a law has been passed by the municipal councils that would tend to better our conditions and afford some protection to the men who work in hazardous and dangerous places. The rapid progress of electricity and its many applications necessitate many other laws having in view the protection of the men working at the trade. The National Board of Fire Underwriters is continually changing its code to meet the demand of inside work, which is a boon to electrical workers, in dispensing with cheap, dangerous wiring installed by unscrupulous persons and unskilled men. In our own town we feel the benefit of having all work done according to their code, and

NOV 1905

to the same extent would laws recommended by us and enacted by state and city governments, still more tend to elevate and raise the standard of skill, thereby raising our wages.

- Nearly every day I meet some man who at one time was an electrical worker and is working at the trade at present. When questioned as to why they are not members of the Brotherhood now they reply that they are way behind in dues, and all other such reasons, or that electric work does not pay enough, and they are going to quit it and find employment at something else. Did the question ever come to you, Why is the trade not paying enough or the union not run to suit you? I will answer the question by saying such men as these lower the trade and also help to lower the wages and bring you and the trade down to ruin. There is no excuse for any man to offer who is in arrears; his condition is just what he makes it; you can drag it down or raise it up; but if you are a man you will have principle and be true to your obligation, do the best for yourself and other members, and conditions, not only in Texas, but everywhere else will be changed.

The Typographical Union here is fighting the Typothetae for the union shop and the eight-hour day. They are standing as firm as the rock of Gibraltar and have the support of the unionists in the entire state. The union shop is what we want in our craft instead of a lot of open shops working men who are a year or two in arrears. We can have the union shop with the assistance of each brother working in our jurisdiction.

One of the shops that the men walked out of last April has signed up an agreement with No. 69 and will run a union shop. Other things are gradually coming our way.

I had the pleasure of attending the ninth biennial convention at Louisville last month and met many of the brothers who have helped make the International Brotherhood what it is.

Work around here has been plentiful and good men were in demand. At present the prospects are good.

I have received a copy of the new constitution that was framed up at the last convention, and trust that, with the laws that were made then, we will have reaped the benefit from them four years hence.

I extend my best wishes to all the brothers, and success to the International Brotherhood of Electrical Workers. Yours fraternally,

J. S. GIBBS,

Press Secretary, No. 69.
Dallas, Tex., Oct. 31, 1905.

No. 96

I believe we have a chance, through the district councils of the second district, to do good work if the locals will elect delegates to attend the meetings who have the interest of the Brotherhood at heart. A very important fact, and about the first thing to be considered after we get organized, is to elect a district organizer, one that will be willing to work for the district and the I. B. E. W.

It has been reported that men are wanted in this city. The contractors did claim about the middle of October that they wanted good men, but when a good man applied to any one of them they were willing to pay from \$2 to \$2.50 for A-No. 1 all-round men and would prefer the \$2.00 men.

We have had some trouble in keeping non-union men off a few jobs here where all other trades were O. K. The same can be said of all other building trades in the city. We cannot get together and work along the right lines. There are at the present time one or more non-union men working in every shop in the city, with all contractors working in a few more all the time. Many of them we have been able to get; some we have not. There is no one to make it his business to attend to such work. The most of the members pay their dues fairly well, but they seem to think their duty ends

NOV 1905

there. On the whole we are not gaining very fast. I think the fault must be with the officers. Some of them are present at every meeting, and some of them are present the night they are elected and then once in three or four months thereafter. I do not know which to lay the lack of interest to—those that do or those that do not attend; but it must be the officers. So let's fire the whole bunch and elect new ones. Then attend the meetings and see that there is something doing all the time.

There is no reason why Worcester should not have better conditions, and we could have them if the members would attend the meetings and do their duty at all times, or even part of the time. I hope to see every local in the district represented at the next meeting of the District Council. As every local must help support it, all should have a part in the management of it.

With best wishes for the success of our newly elected Grand Secretary and the I. B. E. W.

PRESS SECRETARY, LOCAL No. 96.
Worcester, Mass., Oct. 31, 1905.

No. 130

As it is time for another letter in our WORKER, I will start with saying Local No. 130 is still on the warpath. At time of writing we have the bosses pretty hard pressed for men; so it looks as if it were only a question of time when they will see their error and come over. All we ask of our floating brothers is to keep out until the trouble is settled. Quite a few of our northern brothers have come in since the trouble started, and remained in town for weeks—yes, even months—without coming to see us, and when they were accidentally discovered they were ready with the excuse that they did not know of the trouble we had on and they were so busy they could not find time to come and look us up. Now I will leave it to any local or brother in the Brotherhood if that is giving us any sort of a square deal, or

if the brother that would do the like has one ounce of the principle of a union man in him. In my estimation he is worse than the rankest of scabs. We are putting up a hard battle and are fighting principally to maintain the closed shop. So now, brothers, do not put any confidence in the ads. that are inserted in the out-of-town papers about the scarcity of men in New Orleans, for they are only inserted by the bosses with the intention of bringing in outside men to beat us in our struggle for the rights of every free-born American.

The most of the boys are working on their own hook and are combining up in C. and C.'s and P. P. and P.'s. Success to them all is my only wish, for there is nothing like beating the enemy at its own game. So far they have succeeded in taking quite a lot of work away from the bosses, and considering it all in all we are putting up a pretty stiff fight—at least, much stronger than the enemy counted on.

At the convention an organizer was instructed to come down here and help us out, but as yet we have not seen or heard of him; but he may show up before this goes to press—at least, it is to be hoped that he will, for we feel confident that he could do a lot of good here just now with the way things stand at present.

Bro. Clisold returned from the convention filled up to the brim with news about all that happened there and on the way to and from the convention city. Last Thursday night he initiated fifty new members into the mysteries of the Boscoes, or C. C. C. Club, among whom were Thomas Anderson, United States Senator, and Billy Finnan, the genial host of the swellest cafe in the south. Sammy is after them all and sends his regards to all the convention Boscoes; "eats them alive!" So wishing our new officers every success possible, I remain,

Yours fraternally,

A. V. CHISHOLM,

Press Secretary, No. 130.

New Orleans, Oct. 29, 1905.

Nov 1905

No. 163

I have waited until the last minute to get my letter in so that I can tell you members as much of No. 163's situation as possible. We settled with the Traction Company, after using the united efforts of our leaders, at \$2.85 and nine hours, and the company to take back the men who went out as soon as they require them.

The Light Company has one man working, Boise is his name, from Reading. We got three men away from them who came from Baltimore and sent them back.

The Bell Telephone Company has about fifty men here, forty of them working on the new work. They are changing to the common battery system; so you see we have our hands full, as the Bell Company people say they will not change from their present rate.

The Consolidated Telephone Company is pegging away with a few skates. Now, brothers, I think you can read between the lines as to what we are up against here.

P. McGeiver is back from Philadelphia, to work for the traction company.

I request that all brothers of No. 163 who are away from home to write to McGlynn, giving him your address, and let us know how you are getting along. Don't forget us here and don't think we forget you. Wherever you are remember the heart of No. 163 is ever with you, and we members who are left here behind to fight our common battles need your support, morally and financially. No one has bucked yet and I am sure no one is going to; but I am sure you appreciate our position; so let's hear from you; it does us good.

I want to say: Stick to the organization; use your influence for the organization, for if it was not for the union we all know what kind of a story we would have to tell in a good many instances, and in this our present trouble if Bros. President McNulty and Vice President F. A. Connell were not here on the ground we would be

up against it. We all know Bro. McNulty's worth to the union; it isn't necessary to say anything in his favor, for we all know his value.

There are a great many members of the union who have never had the pleasure of meeting Bro. O'Connell, so in a few words I'll show him up: He is a great big, open-hearted, conscientious, honest and fair-minded man, always working for the interests of the union and always ready to aid any member who may appeal to him. I've had the pleasure of being with Bro. O'Connell on some of his official duties, and I must say he is a diplomat. I could say a good deal more about the doings here, but it takes up too much space and I don't want anything cut out.

Bro. W. E. Kennedy, of No. 26, of Washington, D. C., was here under treatment for rupture for the last few weeks. We all hope his treatment will result in a complete cure. Bro. Kennedy showed his untiring interest in the organization by trying to get the inside wiremen together in a local of their own, and I am sure he has planted a seed that will bear good fruit.

In conclusion, follow out the principles of the Golden Rule: Do unto others as you wish others to do unto you. Be honest with yourselves and you will experience no trouble with being honest with your fellow man. Remember, unionism begins to grow from the hearts of our individual selves, and if we are not born with it in our hearts it doesn't say it isn't there; all it needs is a heart-to-heart talk to find out if a man is to be declared on the unfair list. I never thought a man could be unfair if he was shown the right path. I find I am mistaken, for we have some here. I count them as lost, for they are the devil's own, and we as God-fearing men are sure of heaven's portals for having such mortals on this ball of trials and blessings.

Yours fraternally,

W. F. BARKER,

Press Secretary, No. 163.

Wilkesbarre, Pa., Nov. 2, 1905.

NOV 1905

No. 93.

Having been elected press secretary, I will try and tell you how things are with Local No. 93. All the brothers are working; both inside and outside men are doing as well as could be expected. Work here is fairly good at present.

Bro. Crone Hayes, from No. 62, blew in last week and was put to work for the light company. There is room for a few more good card men; without the green goods your name is mud in this neck of the woods.

The street railway is doing a great deal of work at present and they will probably need some good linemen in a few days, as they are building a double-track system from East Liverpool to Wellsville, Ohio, and expect to have it finished by spring.

JOHN C. HOLLAND,

Press Secretary, No. 93.
East Liverpool, Ohio, Oct. 30, 1905.

No. 205

Well, brothers, as it has been some time since you have heard from No. 205, I will take the pleasure to let you know that everything is O. K. at the present writing. We have an agreement with both telephone companies, the Bell and People's, for one year. I guess that looks pretty good.

Work around these parts looks pretty good at present, the inside work particularly so. The job has started between here and Lansing, but I do not know if they will use linemen to set the poles. There are just forty miles of transmission line to build and also an interurban road.

Nothing goes here but the green ticket, remember that, outside and inside. Well, I guess I have said enough this time, but before I close I will say if Bob White is in the business yet I would like to hear from him; also from Dutch Schultz. Hello, Geo. Undredunk, that card you sent me was O. K. Well, brothers, wishing you all success, I remain,

Fraternally yours,

ROBT. GIRARD.

Jackson, Mich., Nov. 1, 1905.

No. 251

As it has been so long since No. 251 had a letter in the WORKER I suppose some of the brothers are beginning to think that we have lost out. But we are still in the ring, and are improving. We are getting a few more lights added to our circle; we threw out the life line and caught three new ones and brought them into the fold, and have good prospects for several more, which I think will get on the right side soon.

We are getting along very nicely, but the great failing of the boys is that they do not attend the meetings as regular as they should. The meetings would be more interesting if all the members would try and be present.

Work is fairly good here, and will be better later on. The Southwestern Telegraph and Telephone Company is going to rebuild this winter and the new company is going to do some work about the first of the year.

Having written all of the news, I will come to close. Wishing all the brothers success, I remain,

Fraternally yours,

W. SMITH,

Press Secretary, No. 251.

Pine Bluff, Ark., Nov. 1, 1905.

No. 192

As No. 192 has not had a letter in the WORKER for some time, I will let the brothers hear from us. Things are in pretty good shape now; all of our members are working and there is work here for a few more linemen.

We have had the charter open about three weeks and have taken in about twenty-five new members.

* Bro. H. O. McInturf, one of our oldest and ablest brothers, has taken out a withdrawal card and has gone to Saulsbury, N. C., to take charge of a business institution for his brother, who is in poor health. All our members are sorry to see Bro. McInturf leave us and wish him the best of luck.

Bro. Hamilton has returned from the convention and was very much pleased with the way things were car-

NDU 1905

ried on and spoke well of our new officers.

Well, as my fuse is about to blow, I will write more about No. 192 next time.

F. UNDERWOOD,

Press Secretary, No. 192.

Memphis, Tenn., Nov. 1, 1905.

No. 450.

Well, boys, we are now located in this desert, in the land of gold and mines. One year ago or more this place was nothing more than a watering place for a prospector and his burros; nothing but a grand waste of sage brush and alkali dust. Today it is a flourishing little city of about seven or eight thousand people, from all parts of the globe. Electrical work has advanced with wonderful rapidity in less than one year. At present there is a transmission line of over 100 miles in length running through to Goldfield over the desert from Bishop Creek, Cal., supplying both here and Tonopah, 50,000 volts into substation, 6,600 volts from there into transformers, reducing it to 110-220 volts. Most all the mines are equipped with power and the city throughout is lighted by the same power. There is a telephone system in town and most all small residences are in connection with the outside world and the surrounding country and Bull Frog country, sixty-five miles south.

The Western Union Telegraph Co. is at present building a line of thirty miles to connect with Tonopah and the outside world. This, with the railroad which is now permanently established, makes Goldfield a part of the United States.

With all these improvements I must say right here that the brothers of the I. B. E. W. were some of the principal factors in making the same. It was they who brought into the town the high-tension transmission line; it was they who brought in the first line of communication of telephone and telegraph, and your humble press secretary had the honor of being the first

lineman to connect the country of Bull Frog over a year ago, across a country that was nothing but sage brush and sand, where water had to be hauled for miles and had to be boiled before it could be used. It was the brothers of the I. B. E. W. who built up the electric light plant and wired houses and business places, that helped make this city what it is today electrically; and all this was done under the most trying circumstances. When we consider all these things and think that now we have here at present an organization formed, a charter and hall to our credit, and all members working with cards, was due to the untiring efforts of a few old stand-bys and floaters. At present our local is composed of linemen and inside wiremen, and in the near future we hope to be able to have control of the substation and electric hoist men. We can also say that we are still in the field to stay and build up our local as long as there is a Goldfield to support it.

Business is at present moving along. The broad-gauge railroad is sending in lumber at reduced rates and on quick deliveries, and is the main cause of the people changing tents to wooden buildings, while the reduced price of light and power puts it in the reach of all to have the conveniences of an electric light. There is no building of new lines as yet, but a few are proposed, which, if they go through, will keep a few of the brothers going all winter.

Well, I think this letter is about finished according to "limited letters." I close with the wishes of good luck and success to the I. B. E. W.

From the land of nuggets.

ED. HILTON,

Press Secretary, No. 450.

Goldfield, Nev., Oct. 19, 1905.

No. 187

The work of the Oshkosh Gaslight Company is unfair. Whether the

work is done by the company or by a contractor, it is unfair.

All brothers are warned to keep away until further notice.

LOCAL No. 187, Oshkosh, Wis.

No. 45

Local Union No. 45 informs us that linemen with good paid-up cards are in great demand in the vicinity of Buffalo and Syracuse. The Ontario Power Company is building a transmission line from Niagara Falls to Syracuse. Wages, \$3 per ten hours. Agreement existing between company and Local No. 45.

No. 166

Having seen nothing of late in THE WORKER regarding Local No. 166, will endeavor to let the outside world know that, though slightly isolated here, we are still in existence and gathering in the wanderers as they stray our way. Business has been very brisk here this summer; but owing to the fact that the winters are very severe (45 to 50 degrees below freeze) I suppose some of the boys will join the bird gang and migrate to warmer climes. Things in general are moving very nice in this part of the world. Well, guess I had better draw it mild. Wishing all success and a good time, I am,

Fraternally yours,

JAS. A. MCKENZIE,

R. S., Local No. 166.

Winnipeg, Mani., Oct. 18, 1905.

Tri-State District Council.

On October 15, 1905, the Tri-State District Council met in session at Pittsburg, Pa., in Electrical Workers' Hall, at 1:30 p. m., with eleven delegates present; but on account of two local unions not having representatives there it was decided to put off the adoption of our by-laws until December 17, 1905. We hope at that time to see all local unions represented. As the convention at Louisville

adopted the District Council clause, we hope to get down to work immediately; so don't forget the date and place, which is Pittsburg, Pa., on December 17, 1905, at 1:30 p. m., in Electrical Workers' Hall, situated 302 Grant street.

Fraternally submitted,

P. T. McDONALD,

General Secretary, Tri-State District Council, 240 E. Main street, Connelville, Pa.

Valuation.

All organizations are more or less confronted with the problem of bettering their conditions; few, if any, are in the condition of the electrical worker in this locality—in fact, all the south—and as a whole we are confronted by many vexatious questions; it's even difficult to decide which is the first of the many. One is the disregard of the solemn obligation taken on entering the I. B. E. W. which does not conflict with any religious or other obligation so far as the writer has found, unless it be Parryism, and the electrical worker is not to be found who can reach any degree of wealth under their present scale, or even realize a small investment from their labors for their declining years. The above few lines are not the body of this article, but tend to lead to what every one should give consideration.

There are many who have never been more than card men and have never dreamt what a union man is, or will they ever. Those of you who have never been in a place that struggled to hold a charter after a lock-out do not realize the difficulties encountered and have missed a part of your education which I hope will never become compulsory for you to experience. It's an education the wiremen of Dallas, the largest town in the largest state have acquired, and will never forget. Once a town that supported two locals, it has simmered down to where one, and that mixed,

NOV 1905

can hardly hold a meeting. Now, what is the cause?

Many of the old members are still in the city, profiting from the results of the work we did in getting a better wage and hour scale. Are they card or union men? You don't find it difficult to decide. As above mentioned, you can never make some of them union men. But can we not find a system whereby we can make them remain card men? We have a valuation on our card; but it must be too small to attract any attention from the ones we must in some way keep in the straight and narrow way. I have not looked into the full details of financial valuation of a card, but two systems have been partially explained to me that are worthy of consideration and must be worth investigating, as both of these organizations are very prosperous and enjoy a large membership, and their apprenticeship system is very strict.

A system whereby a card has a value of, say five hundred dollars and also a loan value, will receive more consideration from its holder before he will let his dues lapse than one of only a hundred dollars. Possibly all the delegates to our next convention will be elected before this is seen, but I hope each of them will investigate the systems now in use by the Cigar Makers, Plumbers and some others and get the subject before the members by means of the WORKER's columns before the convention assembles. We have nothing to lose but our chains, and who are more worthy of some of the earthly goods than the electrical workers? A little work along the line mentioned may bring us some of the luxuries enjoyed by many that have never soiled their hands or turned their thoughts to the advancement of the industrial world, and are the so-called indispensable potent value to society.

To more thoroughly outline the policy, is to make the card age and augment in value by ageing; the first few months might remain as the constitu-

tion now directs, but at the age of eighteen months or two years, say, a value of one hundred and fifty dollars; at two and a half or three years, say a value of two hundred dollars, and so continue to enhance every six months or a year until the limit of valuation is reached. Also with the borrowing value, the limit to be governed by age of card, but not to exceed twenty-five dollars. I know of instances where members of other organizations have embarked in other vocations and still hold to their cards, and it must be that its monetary value is of too great an importance to their families in case of death for them to cast aside. Some of the readers of this may not take kindly to the system as outlined, as many of them are employed in districts where a card is essential to gaining and retaining employment; but in this locality such does not exist, and those here who keep paid up are loyal members or are afraid that they will some day move, when a card is essential, but with the most am inclined to think it the former case, as so many are constantly pleading in behalf of the good cause, but with little if any results; and if a remedy is not found this pleading will cease to be a virtue. I sincerely hope my efforts to start the agitation, though crude, will not be fruitless, and that the next convention will take some action along this line; and in the meantime let us have others' views expressed liberally.

Would like to call attention to the advertisements inserted in many of the leading and other advertising mediums of the country regarding the resources of Dallas. There are numerous opportunities for capital, as Dallas is destined to become the metropolis of the southwest. But if the idle men that are now here were given employment more money would be in circulation and the charitable institutions would not be so busy. Since the rapid growth of the city has begun hundreds of laborers and mechanics belonging in nearby towns have flocked in.

NOV 1905

There is only one building of any importance under construction that attracts the attention of the wireman. Cottages and other residences are being done mostly by children, who have imbibed the idea that a few years will find them among the leading engineers; and some of the contractors are ever ready to aid them in such belief in order to reap the harvest of their work. Not only does the above refer to children employed but to the men from the jungles who may be handy men at wire fences and who are anxious to have E. E. or M. E. to their names.

Moral: Put more value on the card and keep the children in school and the fence men in the jungles.

Fraternally yours,

O. A. GAFFORD,

Local No. 69, Dallas, Tex.

Millions Made Through Inventions.

As indicating the possibilities of an exercise of the inventive faculties, a Chicago man has a story which has been told for several years as illustrating one of his lost opportunities.

He had a chicken yard at the back of his premises, and built a house for the poultry on a small scale. He painted it himself, buying the linseed oil and the lead and mixing the paint himself. It occurred to him to mix a darker paint for trimming the door facings and the windows, and in the work of mixing the paint he ran short of oil. He didn't want to dress and go down the street if he could help it, and in looking about him discovered a half gallon bottle in his basement that held about a quart of some unknown and viscid oil which he decided might be good enough for the purpose. He mixed his darker paint with this oil and applied the single coat to the frames of the door and the two windows.

This was ten years ago. The chicken house long ago parted with its two coats of body paint that had been mixed with the linseed oil, while the door and window trimmings stand out in a comparatively smooth and weatherproof coat almost as clear as they were at the end of the first three months. Without a question the remarkable durability of this paint is due to

the chance oil which he picked up in the bottle in the basement. But the trouble is he has no idea what the oil was! He could not duplicate the paint if his life depended upon it.

As a suggestion for something that might easily make a fortune for an inventor, one has only to turn to the milk bottle that now is in almost universal use in the cities. There are at once two phases worthy of the inventor's consideration. First is the bottle itself, and, second, the handling of the bottle's contents.

As for the bottle, the losses of one big milk concern in Chicago average \$50 a day for breakages. The least important of these breakages are those in which the whole bottle is destroyed by falling; the worse phase is that by which the neck rims are slightly chipped, preventing the patented cardboard cover from retaining the milk. A chip from the inner rim, where chipping is most likely, may not be as big as a dime in order to destroy the bottle's usefulness. A cheap flint glass, or a new cover shape that will make a nonchipping form of neck possible and yet cheap—something that will make a bottle service possible without the loss of hundreds of dollars a day in Chicago alone—is a prospect that should be worth while to inventive ability.

Many of the world's best inventions have been accidental in a great measure. Most of the other revolutionary discoveries in all fields have come from a carefully studied meeting of conditions with a carefully studied solution of the problem. The monumental failures in the world of inventions have come about through the inventor's allowing himself to forget the first principle of the necessity for his appliance in his abstracted determination to "make the thing work."—*Chicago Tribune*.

**Eastern High-Grade Wet
and Dry Batteries and
Atlantic Dry Batteries**

Eastern Battery Connectors

EASTERN CARBON WORKS,

Carbon Street,

Jersey City, N. J.

NOV 1905

CURIOUS SAVINGS

It is easier to follow the races than to get ahead of them.

The road to wealth is paved with pennies saved.

A thousand men win competency by quietly saving their money while one gets rich by speculation.

Tiger meat is popular with Chinese of the Straits.

In 54 cases out of 100 the left leg is shorter than the right.

The smallest vibration of sound can be distinguished better with one ear than with both.

Only one person in 15 has perfect eyes, the largest percentage of defects prevailing among fair-haired people.

Germany is able to feed about nine-tenths of her nearly 60,000,000 inhabitants on the products of her own soil.

The Kongo dwarfs, six specimens of which have been brought to London by Colonel Harrison, never reach a greater age than 40 years.

Twenty thousand frogs a year are used for dissection and experimental purposes in the University of Pennsylvania medical laboratories.

The nails of two fingers never grow with the same rapidity, that of the middle finger growing the fastest, while that of the thumb grows slowest.

Lake Biwa is the only large sheet of fresh water in Japan worthy of mention. It is 36 miles long, 12 miles wide, and its greatest depth about 300 feet.

There is a technical school for millers in Dippoldiswale, Germany. It was founded as a private school in 1881, and in 1890 was taken over by the municipality.

The two sides of a person's face are never alike. The eyes are out of line in two cases out of five and one eye is stronger than the other in seven persons out of ten. The right eye is also as a rule higher than the left.

The sum spent for intoxicating liquors in Great Britain and Island in

1904 was \$817,000,000 in round numbers. This is a decrease from the total of 1903. In fact, for several years the national drink bill has been decreasing.

Plans to build electric street car lines in Peking have aroused a great protest from the natives, who say the cars would be very harmful to the poor, as large numbers of coolies now make a living by hauling passengers in rickshaws or on wheelbarrows.

SPEAK GENTLY.

There are enough of tears on earth,
Enough of toil and care;
And e'en the lightest heart hath much
To suffer and to bear.
Within each spirit's hidden depths
Some sweet hope withered lies,
From whose soft, faded bloom we turn
In sadness to the skies.

Speak gently, then, and win the smiles
Back to the shadowed face,
And bid the clouded brow resume
Its fresh and youthful grace.
Thy gentle words, perchance, may
guide
A wanderer to the sky,
Or teach some earth-bound soul to
soar
Above the things that die.

Lead gently back the erring feet
That love perchance to stray;
Thou canst not know how long they
strove
Ere leaving virtue's way;
Nor with what desolating power
Despair's dark phantom came,
And with her sad touch, made the
heart
A desert, seared with flame.

Within that desert there is yet
Some pure oasis-spot,
Formed of sweet memories of scenes
That ne'er can be forgot.
For that bright soul, with care now
worn,
Bowed down though it may be,
The selfsame Savior died, who gave
His priceless life for thee.

NDV 1905

In Memoriam

Whereas, God in His divine mercy has been pleased to call from our midst our esteemed friend and brother, Frank G. Kirkham, and

Whereas, Sorrow has thrown her said veil over his desolate home and friends, therefore, be it

Resolved, That we, in regular convention assembled, do bow in humble, submissive obedience to the Divine will, in the belief that his better and happier life is still to come; and be it further

Resolved, That we tender his bereaved friends and family our heartfelt sympathy in this their great affliction. We realize how cold and vain are the words of consolation to the bereaved and wounded heart; but if sincere sympathy and fraternal love can soothe the wound, we offer them from the tenderest feelings of our hearts in their behalf; and we further

Resolve, That our charter be draped for the period of one month as a token of our respect to our deceased brother, and that these Resolutions be spread upon the minutes of this Local, a copy forwarded to the bereaved family of our late brother, and a copy be published in our official journal, THE ELECTRICAL WORKER.

R. R. GRANT,
O. H. APPLETON,
H. A. BROCK,
Committee.

Whereas, It has pleased Almighty God in His infinite wisdom to call from our midst our esteemed brother, Jas. C. Pittenger, and

Whereas, We mourn our loss of one for whom, while in life, we held dear as a brother and a friend, and while we can nevermore grasp his hand and

see his pleasant smile in life, we humbly submit to Him who has called our brother's spirit to life beyond the grave; therefore, be it

Resolved, That the sudden removal of such a life from our midst leaves a vacancy and a shadow that will be deeply realized by all the members of this local union; and be it further

Resolved, That we, as a union, in brotherly love pay tribute to his memory by expressing our sorrow at his loss, and extend to his relatives our deepest sympathy in their bereavement; and be it further

Resolved, That we drape our charter for a period of thirty days, and a copy of these Resolutions be spread upon the minutes of this local, and a copy sent to the bereaved wife and a copy sent to our official journal.

LOCAL No. 331.

Whereas, It has pleased the Almighty God in his infinite wisdom to remove from our midst our esteemed and loving brother, Thomas Buttler, therefore, be it

Resolved, That Local Union No. 54, of Columbus, Ohio, will bow in meek submission to the will of the Almighty God in taking from our midst an honorable and cheerful brother, with a character beyond approach; and be it further

Resolved, That Local Union No. 54, I. B. E. W., sincerely mourns his loss and his absence from our local meetings, as he had been a regular attendant. We also consider his untimely death a warning from our Heavenly Father to be ready at all times for His call that may be given by Him at any moment, for He that giveth life also

NOV 1905

taketh in accordance with His wisdom; and be it further

Resolved, That we tender to his bereaved mother and sisters our sincere condolence and our earnest sympathy in their loss in one who was a son and brother of sterling quality; and be it further

Resolved, That we, as brothers, drape our charter in mourning for a period of thirty days as a token of our esteemed respect, and that a copy of these Resolutions be presented to his mother and sisters, and a copy be sent to our official journal for publication, and also a copy of these Resolutions to be spread on the minutes of our meeting to be set aside to his memory. Sleep on, dear brother, sleep; thy weary task is over.

Whose faithful hands need toil no more.

A quiet calm has stilled our breast; Rest, dear brother, gently rest.

Committee on Resolutions:

D. C. HAGERTY.

I. E. BEARE.

JOHN A. FADLEY.

Whereas, It has pleased Almighty God in His infinite wisdom to call from our midst our esteemed brother, M. J. Doolan, and

Whereas, We mourn the loss of one whom, while in life, we held dear as a brother and a friend, and while we can never more grasp his hand and see his pleasant face in life, we humbly submit to Him who has called our brother's spirit to the life beyond the grave; therefore, be it

Resolved, That the sudden removal of such a life from our midst leaves a vacancy and a shadow that will be deeply realized by all the members of this local union; and be it further

Resolved, That we, as a union, in brotherly love pay tribute to his memory by expressing our sorrow at his loss, and extend to his mother and relatives our deepest sympathy in their bereavement; and be it further

Resolved, That we drape our charter for a period of thirty days, and that a copy of these Resolutions be spread

in full upon the minutes of this local and a copy be sent to the bereaved family and a copy sent to our Grand Secretary.

(Signed) JOHN J. KENNEDY,
President.

JAMES CROOK,
Secretary.

Bro: John Keefe, who was initiated in Local No. 27, Baltimore, in 1901, as lineman, died in Cleveland City Hospital on Monday, October 23, '05, and was buried by Local No. 39 from St. Patrick's Church on Friday morning, October 27. The remains were placed in the vaults of Calvary cemetery. The funeral services were conducted by Father Moran, of St. Patrick's Church, in whose charge remain all the necessary records of the funeral. The remains will be held until Local No. 39 can find out something about his relatives.

Bro. Keefe came to Cleveland with a traveling card from Local No. 21, of Philadelphia. We have telegraphed to Baltimore and Philadelphia, but have had no definite information. Should any brother know the location of his relatives he would confer a favor to Local No. 39 by sending the information. As near as we can find out, he boarded at the Barley Sheaf Hotel when he worked in Philadelphia; he also worked around Trenton, N. J., and Syracuse, N. Y.

Geo. H. GLASON,
Rec. Sec., Local No. 39.

At the regular meeting of Local Union No. 3, I. B. E. W., the following was unanimously adopted:

It is with heartfelt sorrow and deep grief that we announce the death of our beloved brother, James F. Ryan, who departed from this sphere of life on October 25, 1905. He was an active and untiring worker in the cause of unionism up to the last moment of his life. No words can express our appreciation of his devotion to duty in the cause of No. 3 in its hour of peril. In his death a wife has lost

Nov. 1905

a loving husband and his daughter an indulgent father, and No. 3 has suffered an incomparable loss.

Resolved, That the above expression of our feelings be entered in full upon the minutes, and that the charter be draped in mourning for thirty days, and that an engrossed copy of this resolution be presented to the widow, and a copy forwarded to THE ELECTRICAL WORKER for publication.

JOHN W. ARMSTRONG,

M. J. HOROHAN,

F. J. SWEET,

(Signed)

Committee.

PAUL McNALLY,
Recording Secretary.

Whereas, It has pleased Almighty God in His infinite wisdom to call from our midst our esteemed brother, Thomas N. Laurason, and

Whereas, We mourn the loss of one whom, in life, we held dear as a brother and a friend, we humbly submit to Him who has called our brother's spirit to the life beyond the grave; therefore, be it

Resolved, That we extend our heartfelt sympathy to His bereaved parents, relatives and friends; and be it further

Resolved, That a page be set aside in our minute book for the spreading of these Resolutions, and that our local's charter be draped for thirty days; and be it further

Resolved, That a copy of these Resolutions be forwarded to the family of our late brother, and a copy sent to our official organ for publication.

C. A. MACDOUGALL,

W. E. MANNING,

Committee.

Whereas, It has pleased Almighty God in His infinite goodness and wisdom, through his messenger, Death, to visit us and remove from our midst our highly esteemed and beloved brother, Joseph Herman; and

Whereas, We mourn the loss of one who, while in life, we held dear as a brother and friend; and while we can never more grasp his hand and meet his pleasant smile in this life, we there-

fore humbly commit to Him who is the giver of all good gifts in this life the spirit of our beloved brother; and therefore, be it

Resolved, That we, as a brotherly organization, pay tribute to his memory in these lines as a character worthy of our confidence, honor and justice; and, inasmuch as our union has sustained a severe loss, therefore, be it

Resolved, That we drape our charter for a period of thirty days as a token of respect to our departed brother; and be it further

Resolved, That these Resolutions be spread upon our minutes, and that a copy be forwarded to our official journal for publication.

(Signed) JAS. McNULTY,

H. T. BLACKADAR,

WM. MCKINNEY,

Committee on Resolutions,
Local No. 31.

Whereas, It has pleased Almighty God in His infinite wisdom to remove from our midst Brother C. A. Blanchard, and

Whereas, In his death Local Union No. 57 loses a true and loyal member, and his parents a loving and dutiful son; therefore, be it

Resolved, That we, the members of Local Union No. 57, do hereby express our deep regret and sorrow at his untimely end, and that we extend to his bereaved parents our heartfelt sympathy in this hour of mourning; and, be it further

Resolved, That a copy of these Resolutions be spread on our minutes and a copy sent to his parents, and a copy be inserted in the next issue of the official journal of this brotherhood; and, be it further

Resolved, That the charter of Local Union No. 57 be draped for a period of thirty days in memory of our deceased brother.

Respectfully submitted,

W. F. RAMSAY,

CHAS. T. VAIL,

J. A. YASMER,

Committee.

NOV 1905

Whereas, It has pleased Almighty God, in His infinite wisdom, to take from our midst Bro. J. G. Runyon; and

Whereas, Local No. 183, has lost a true and worthy member and his family a loving son and brother; therefore, be it

Resolved, That we express our deep sorrow at his sudden death, and that we extend our sympathy to his bereaved family in this hour of affliction; and be it further

Resolved, That a page be set aside

on our minute-book for the spreading of these resolutions, and that our charter be draped for a period of sixty days as a token of the esteem in which he was held; and be it further

Resolved, That a copy of these resolutions be sent the family of our late brother, and a copy sent to the official journal.

Fraternally,

C. D. ROTHENBERG,

J. W. LIVINGSON,

N. B. SHELEY,

Committee.

SUCCESS.

Success is the goal for which we all strive;

The power of ambition keeps business alive.

The reward of life's labor a fortune should be,

But failures are frequent, in this you'll agree.

"Every man," said our hero, "can riches possess;"

If the right course is taken the end is success.

"Opportunity comes every day to your door."

In the I. B. E. W. are chances galore.

T. J. McCARTHY,

Local No. 258.

SENDING A SPOKEN LETTER BY MAIL

The phonopostal, says "La Nature," is an apparatus which registers and afterward reproduces the human voice, by means of a sheet of pasteboard, shaped like a postal card. Jules Verne conceived the idea of replacing the old wax cylinder used in other phonographs by a sheet of paper, which could be posted like a letter.

The advantages of the phonopostal are numerous. The records are made by an ordinary phonograph of the simplest possible type simply by means of a stylus provided with a sapphire point. This point presses on an impressionable substance, called "sonorine," spread on the surface of the card. The merit of the invention consists in the discovery of a substance which can be easily spread on a sheet of cardboard and possesses all the advantages of the wax-coated cylinders.

Sonorine is able to stand the strain of transmission by mail. The sounds are in-

scribed in a spiral, which commences at the outside edge of the card and continues in an ever-narrowing curve until it forms a small circle, hardly the diameter of a small coin. The record is so deeply engraved in the coated cardboard that not more than two or three syllables are lost by the two stampings of the postoffice on the concentric lines.

Seventy-five or eighty words can be inscribed on a phonocard, which is sufficient for news. One object of the phonocard is to replace the illustrated postal card. Furthermore, it is possible to be far more chatty on a phonopostal than on an ordinary postal card, for on the latter there is only a little rectangular space left which can be written on.

MICROSCOPE THAT SHOWS THINGS SOLID

A new kind of microscope—a magnifier with stereoscope vision—has been invented by Dr. Carl Zeiss, of Jena. It has two tubes, one for each eye, and is so contrived that objects seen through it have their natural appearance of solidity. The magnification is not intended to be great—only sixty or seventy-five diameters at the most—but the view one gets of a thing through the instrument corresponds to what might be imagined to be its aspect as beheld by an insect. Thus one sees a fly as it would look, perhaps, to an inquisitive potato bug.

One of the most interesting uses to which the instrument is applied is for examining the nerve screen, or retina, which lines the human eye. For this purpose it has attached to it a small tube containing an electric arc light, which serves the purpose of a searchlight, throwing a strong beam into the interior of the organ of vision. Thus the details of structure may be observed greatly magnified, so that the physician is enabled to find out if there is anything wrong with much more certainty than with the every day ophthalmoscope.

NDV 1905

EDITORIAL.

By PETER W. COLLINS.

To all
Members,
GREETING: Upon assuming the duties of Grand Secretary of the I. B. E. W., it shall be my purpose to faithfully perform my duty for the best interests of the Brotherhood, and fulfill every obligation imposed on me by the constitution; assist in making our organization equal in character, membership and results, to any other in America.

In the accomplishment of these results, the earnest, active co-operation of each member of the Brotherhood is essential, and without it, success is impossible.

I recognize fully the power and influence an organization accrues from the efficient management of its official journal, and it shall be my endeavor, while editor of the ELECTRICAL WORKER, to make it a publication of merit, an educator in the trades-union movement, and a factor in the progress of electrical industry.

The Local Union As an important factor in the dissemination of knowledge
a Public for the common weal, the trade-union stands pre-eminently
Educator. fitted in the service of education; and the character and influence of its service to the cause is best exemplified by the legislation enacted through its unremitting efforts.

The system of public education in this country to-day represents in its inception and perfection—although by no means perfect—the result of early trades-union endeavor, and the future permanency and maintenance of this standard of education depends, not on the higher theories of the many eminent and able educators of our time; but upon the earnest, sincere and ever-increasing love of all trades unionists for the institutions which has made our country great. The trades-union meeting is the school where many men and women are imbued with the desire to be somebody, to do something. Men and women—and their number is legion—are to-day holding positions of trust and responsibility in public and private service, who owe their training to the education they received in the forum of a trades-union. This fact alone should make men love their union more, and should act as an incentive to regular attendance and frequent participation in the many questions of moment which are ever before them. Remember your obligation is a solemn one; the duty you owe your fellow-man should not be shirked, and the greater obliga-

tion you owe yourself is to do your own, your full duty, without fear and without favor.

**Value of
Good
Reading.**

To him who would enrich the store of his wordly knowledge nothing is of greater or more lasting benefit than a love of good, pure, wholesome reading. Not the trashy passing literature of a day, by the perusal of which one's nature itself is oft-times tainted; but a range of subject-matter worthy of the time and attention of men whose time and attention is of moment. And how often even the very course of our own life is changed by the acquaintance with works of merit. Ideas are impregnated into our understanding that teach us the finer qualities of life, the greater possibilities of what the future holds and the reliance and confidence in the talents of our commonplace, every-day existence.

And yet how few of us appreciate the practical value and instruction we derive from the same, and how often do we pass with inattention subjects that would enhance our career, add to our education, and make the value of our labor and talents greater in monetary values to ourselves and those dependent upon us. Yes, those who are to-day foremost in the ranks of every station in life owe their success to the application, to the time spent in research among the masters of the written thought. And what a return it has brought, a return the value of which is inestimable, a return that is making the wheels of industry hum with the work of a busy day; the return that is adding to the moral fiber of the nation; a return that is adding every day to the prosperity and greatness of our country; a return the interest of which is an ever-increasing ratio of interest on the investment.

Be a part of this progress; be a factor in the life of the times, and as electrical workers, as members of a craft where possibilities are immeasurable, devote part of your time and attention to the acquirement of knowledge that will be in keeping with the moral, intellectual and industrial progress of your day.

**Power in
Affiliation.**

Man is essentially a dependent creature, whose success in life is the result from the use made of certain talents endowed by his Creator.

In the exercise of these talents, results are best accomplished by centralization of effort with men in the effort of principle for a common cause. Failure in individual effort is very often caused by the misapplication of method, or rather a lack of method.

Mistakes come from the assumption of false premises, and the lack of proper application to a simple proposition retards the progress of many worthy causes.

The trades-union movement stands on basic principles of right, and its efforts to secure the attainment of conditions necessary for a proper

standard of life makes it the factor most deserving of the earnest, active co-operation of all believers in the principle of equal justice. Trades unionists in particular should appreciate the necessity of thorough organization, and the best protection of such organization comes through affiliation with central and federated bodies of all crafts. By such affiliations conditions are gained and preserved, and the nearer perfection the local union the greater the character and influence of the central body. Each local union should acquaint itself with all conditions surrounding the employment of men of their particular and relative crafts; that by such acquaintance they may have valuable data for the enlightenment of their members and of great service for organizing purposes.

Industrial Peace.

Very recently in the city of Washington, D. C., many eminent gentlemen came together to discuss industrial peace and the best methods for its perpetuation. The chairman of the meeting, Mr. Macfarland, chairman of the Board of Commissioners of the District of Columbia, opened the meeting by expressing some very equivocating phrases on the subject. The first speaker, a Mr. Syme, was introduced as a most eloquent and able orator, and a lawyer of great power. Mr. Syme dilated at length on law and jurisprudence and advocated compulsory arbitration as essential to industrial peace. Then President Needham, of the George Washington University, expatiated with considerable eloquence on very many aspects of the industrial situation from feudal days to date.

While he contended there was no justification for the existence of the days of feudal lords, he attempted to justify a peculiar and original system of logic: the aggregation of all industry into corporations, after the method of feudal days; but added that law should place an intrinsic value on the stock of said corporations. He also asserted the necessity of compulsory arbitration.

Then a Mr. Wolf was introduced, a kindly-looking old gentleman of many years, who prayed for compulsory arbitration. And a very estimable clergyman, named Mr. Simon, who spoke on the spiritual law of duty, and insisted it should take the place of the law of rights. Duties first, rights after. And another worthy gentleman moved a committee be appointed, with full power along lines of industrial peace. And the meeting adjourned.

Comment is hardly necessary. But a word as to industrial peace. The trades-union movement wants permanent industrial peace, a peace that will be honorable and lasting; a peace founded on the recognition of justice and the law of obligation from man to man.

But compulsory arbitration is not the remedy for the ills of industrial differences.

It must come, as aforesaid, by the recognition of the rights of all men, employer and employee, and one of the greatest factors is the trade-agreement, founded on the same law of recognition of rights, guided by the wisdom and judgment of a better understanding in the determination of questions at issue.

WORKINGMEN IN TEMPERANCE

An Address to the C. T. A. U. by President Roosevelt, Wilkes-Barre, Pa., Aug. 10, 1905.

I am particularly glad to speak to this audience of miners and their wives and children, and especially to speak under the auspices of this great temperance society. In our country the happiness of all the rest of our people depends most of all upon the welfare of the wage-worker and the welfare of the farmer. If we can secure the welfare of these two classes we can be reasonably certain that the community as a whole will prosper. And we must never forget that the chief factor in securing the welfare alike of wage-worker and of farmer, as of everybody else, must be he man himself.

The only effective way to help anybody is to help him help himself. There are exceptional times when any one of us needs outside help, and then it should be given freely; but normally each one of us must depend upon his own exertions for his own success. Something can be done by wise legislation and by wise and honest administration of the laws; that is, something can be done by our action taken in our collective capacity through the state and the nation.

Something more can be done by combination and organization among ourselves in our private capacities as citizens, so long as this combination or organization is managed with wisdom and integrity, with insistence upon the rights of those benefited and yet with just regard for the rights of others.

But in the last analysis the factor most influential in determining any man's success must ever be the sum of that man's own qualities, of his knowledge, foresight, thrift and courage. Whatever tends to increase his self-respect, whatever tends to help him overcome the temptations with which all of us are surrounded, is of benefit not only to him, but to the whole community.

No one society can do more to help the wage-worker than such a temperance society as that which I am now addressing. It is of incalculable consequence to the man himself that he should be sober and temperate, and it is of even more consequence to his wife and his children; for it is a hard and cruel fact that in this life of ours the sins of the man are often visited most heavily upon those whose welfare should be his one special care.

For the drunkard, for the man who loses his job because he cannot control or will not control his desire for liquor and for vicious pleasure, we have a feeling of anger and contempt mixed with our pity; but for his unfortunate wife and little ones we feel only pity, and that of the deepest and tenderest kind.

Everything possible should be done to encourage the growth of that spirit of self-respect, self-restraint, self-reliance, which, if it only grows enough, is certain to make all those in whom it shows itself move steadily upward toward the highest standard of American citizenship. It is a proud and responsible privilege, to be citizens of this great self-governing nation; and each of us needs to keep steadily before his eyes the fact that he is wholly unfit to take part in the work of governing others unless he can first govern himself. He must stand up manfully for his own rights; he must obey the law, and he must try to live up to those rules of righteousness which are above and behind all laws.

* * * * *

This applies just as much to the man of small means; to the capitalist as to the wage-worker. And as one practical point, let me urge that in the event of any difficulty, especially if it is what is known as a labor trouble, both sides show themselves willing to meet; willing to consult and anxious to treat the other reasonably and fairly, each to look at the other's side of the case and to do the other justice. If only this course could be generally

NOV 1905

followed, the chance of industrial disaster would be minimized.

Now, my friends, I want to read you an extract from a letter I have just received from a Catholic priest whom I know well and whom I know to be as staunch a friend of the laboring man as there is to be found in this country. Now and then—not too often—it is a good thing for all of us to hear what is not perhaps altogether palatable, provided only that the person who tells the truth is our genuine friend, knows what he is talking about (even though he may not see all sides of the case), and tells us what he has to say, not with a desire to hurt our feelings, but with the transparent purpose to do us good. With this foreword, here is a part of the letter:

"I would humbly recommend that you lend your entire weight to the cause which the Catholic Total Abstinence Union of America represents, and especially so in its relation to the working classes of this country, for whom it is doing so much good. You know that the temperance movement is a potent auxiliary to the institutions of our country in building up a better manhood and a truer Christianity among our citizens. It played a very important part in the two coal strikes of 1900 and 1902, respectively, by keeping the men sober, and thus removing the danger of riotous and unbecoming conduct.

"There is one discouraging feature connected with the upward tendency of the wage scale among the workmen of this country. The higher the wages, the more money they spend in saloons. The shorter the hours, the more they are inclined to absent themselves from home. An apparent disregard for family ties is growing among the poorer classes which will eventually lead to a disregard for the blessings our country affords them. Hence, with an increase of wages a corresponding movement for better manhood, nobler citizenship and truer Christianity should be set on foot. The dignity of labor should be maintained,

which can be done only through the love that a man should have for his work, and through the intelligence which he puts into it. A steady hand and sober mind are necessary for this. Hence, the necessity of the temperance cause and of the efforts which organized abstainers are putting into the movement."

Now, in what is here written this priest does not mean that the tendency is to grow worse; but he means that with shorter hours and increased wages there is a tendency to go wrong which must be offset by movements such as this great temperance movement and similar efforts for social and civic betterment, or else the increase in leisure and money will prove a curse instead of a blessing. I strive never to tell any one what I do not thoroughly believe, and I shall not say to you that to be honest and temperate, and hardworking, and thrifty will always bring success.

The hand of the Lord is sometimes heavy upon the just as well as upon the unjust, and in the life of labor and effort which we must lead on this earth it is not always possible either by work, by wisdom or by upright behavior to ward off disaster. But it is most emphatically true that the chance for leading a happy and prosperous life is immensely improved if only the man is decent, sober, industrious and exercises foresight and judgment. Let him remember above all that the performance of duty is the first essential to right living, and that a good type of average family life is the cornerstone of national happiness and greatness. No man can be as good citizen, can deserve the respect of his fellows, unless first of all he is a good man in his own family, unless he does his duty faithfully by his wife and children.

* * * * *

I strongly believe in trades unions, wisely and justly handled, in which the rightful purpose to benefit those connected with them is not accompanied by a desire to do injustice or

NOV 1905

wrong to others. I believe in the duty of capitalist and wage-worker to try to seek one another out, to understand each the other's point of view, and to endeavor to show broad and kindly human sympathy one with the other.

I believe in the work of these great temperance organizations, of all kindred movements like the Young Men's and Young Women's Christian Associations, in short in every movement which strives to help a man by teaching him how to help himself. But most of all I believe in the efficacy of the man himself striving continually to increase his own self-respect by the way in which he does his duty to himself and to his neighbors.

ORGANIZATION

Organization is the system of accomplishing great things by combining the brains and muscles of men to gain some object which would be impossible to the individual. Organization, to be successful, must necessarily be methodical and systematical in all its affairs, hence it is that every organization of labor throughout the world adopts rules and regulations for the guidance of its members, and as a general proposition every member takes a solemn obligation to uphold and defend the principles and doctrines of the crafts to which he belongs voluntarily, consequently better work is expected from the members. Without a system one man would be working in opposition to his fellows. The desideratum necessary is unity, for without a oneness all the system is weakened, and instead of being free disinterestedly for the aims and objects of the whole, the true members must necessarily double their exertions in order to mend the break to keep the structure intact. The work to be done is of such a character that it requires the greatest care to avoid shoals and spasms of discontent and a multiplication of generals, so each craft provides the ways and means of

how and on whom the responsibility must rest for the carrying out of the desires as expressed by the majority. It is the fundamental principle of the highest law known that he that would not mend would destroy; hence, it is necessary that once the majority has spoken the minority should display a willingness, if passive only, to acquiesce, as history tells us that the majority will defend their principles as previously expressed, even to the discomfiture of the minority.

This principle above all others should appeal to the intelligence of the general run of men more strongly and logically than any other feature in the general laws of any organization, whether it be labor, political or social. It is acknowledged by all that it is a dangerous precedent to ignore the will of the majority, while it is also true majorities are not always right. Nevertheless, the majorities can and should be trusted before attempting to overturn the existing organizations that have been built at the expense of all of the members, and which will be run by the majority regardless of all opposition. The lack of knowledge in regard to laws and rules is very often the ground-work of dissension in many organizations, when, if the laws of the organization were better understood by the discontented members, not a whimper of complaint would be heard, as generally there being such a diversity of opinion expressed by large bodies when laws are being framed, it is safe to assume that any law that receives the indorsement of the majority is the best law for the greatest number, and in this spirit all laws passed should receive the sanction of every man or woman who voted for it. Organization enables the individual member to combat impositions on his rights where singly he were but a drop in the ocean, powerless in every way to help himself, he being at the mercy of those who oppress him. It may not be by choice, but through the evil effects of the competitive system. Any-

NOV 1905

how, whichever mode puts him at a disadvantage, it is all the same to him. When he joins forces with his fellows in organization he immediately secures a position of equity with his oppressors which commands their attention if not their respect. Just in the same manner as the standing army of Germany commands the peace of Europe by its silent power, so in labor organizations it is the silent power, the unknown that is behind them that causes attention and respect to be given to its members; as a man's nature doesn't change when he joins an organization—he only changes weapons, and they are peaceful instruments—organization and education, instead of impotency. Man when he joins a labor organization, becomes strong in proportion to his craft, a weak labor organization being a constant invitation to the masters to reduce the wages of their men, while the strong organization invites anxiety on the master's part to have an agreement and contract with his men, which of itself speaks volumes for the business methods the trade union movement has inaugurated and injected into society at large. This principle does now, and will in the future receive more indorsements from the very men who, a few years ago, refused to recognize the union.

Organization never intended to injure any man, but, on the contrary, is desirous of promoting better feeling among all classes, and when a conflict cannot be avoided, it is simply to vindicate themselves and their principles that they resist all unfair proposals and conditions.

The labor organizations stand for the best elements of society at large; are one of the greatest factors in preserving the peace of every country that they are located in, the press to the contrary notwithstanding. Organization stands for all that is good in every community, and increases in usefulness every year. As years go by the old methods employed, all of which appeal to the best nature of

humanity and stand for the best interests of all Christian people, and under the banner of organized labor will the children of men be benefited, as the poet Crabbe gave us:

In idle wishes fools supinely say:
Be there a will and wisdom finds a way.

—Dayton (O.) Reporter.

THE OPEN SHOP

"What is all this talk that's in the paapers about the open shop?" asked Mr. Hennessey. "Why, don't ye know?" said Mr. Dooley. "Raally, I'm surprised at yer ignerence, Hinnissey. Shure, 'tis star-rted be sich patriots as Dave Parry, Fred Job an' President El-yut, of Harvard, t' bust up th' la-labour unions. They are afraid, Hinnissey, that th' la-labour unions will over-run this grand an' glorious counthry of ours, an' there wud be no wan left t' arganize into Citizens' Alliances an' Business Min's Associashuns. An' so they boost th' open shop. Whut is th' open shop? Shure, 'tis a shop where they kape the dure open t' accomodate th' consthant sthream of min comin' in t' take jobs cheaper thin th' min whut has th' jobs. 'Tis like this, Hinnissey—suppose wan of these free-barn Amerycan citizens Dave M. tills us about is wurkin' in an open shop for th' princely wages of wan large iron dollar a day of tin hours. Along comes another free-barn son-of-a-gun, an' he sez t' th' boss; 'I think I cud handle th' job fer ninety cints.' 'Shure,' sez th' boss, an' th' wan-dollar man gets th' merry, jinglin' can an' goes out into th' crool wurd t' exercise his inalienable roights as a free-barn Amerycan citizen an' scab on some other poor divil. An' so it goes on, Hinnissey. An' who gets th' benefit? Thru, it saves th' boss money, but he don't care no more for money than he does for his roight eye. It's all principle wid him. He hates t' see his min robbed of their independence. They must have their independence. They must have their in-

NOV 1905

dependance, reghardliss of inything ilse." "But," said Mr. Hennessey, "these open-shop min ye minshun say they are fer th' unions, if properly conducted." "Shure," said Mr. Dooley, "if properly conducted. And there ye ar-re. And how wud they have thim conducted: No sthrikes, no rules, no contrhacts, no scales, hardly iny wages an' dam few mimbers." "'Tis a foin moni t' wur-rk in an open shop," said Mr. Hennessey. "An A. P. A.," said Mr. Dooley.—*Typographical Journal*.

NOT A LEADERS' AGITATION

The American Labor Movement is an Uprising of the Masses

Trade unions are not the whole of the labor movement, but they are the laborer's way of turning the labor movement to immediate advantage. Their methods, their successes, their failures, cannot be understood except as they are seen to be a part of the moral, industrial and political history of the country. Some of their methods do not find favor with moralists and political economists who study them from the abstract point of view. The problem is much like that of the older botany and zoology—with a difference. The zoologist collected his bugs and birds, named their parts, arranged them in families and genera, and praised God or nature (according to his bent) for their wonderful adaptations. But when the evolutionist—i. e., the zoological historian—came into the field, a broader explanation ensued. He saw the struggle for existence, over-population and under-consumption, maternal love and mutual aid, and he explained the claws and teeth of the tiger as well as the song of the bird. He neither approved nor praised—he understood.

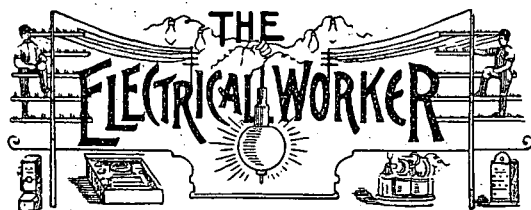
So with the older economist or moralist. He has seen the trade union, with its closed shops, its apprentice limitations, its restrictions on output and machinery, and its minimum wage, and he condemns it as contrary to divine or natural law. He may approve of the union, but he condemns

the methods that keep it alive.

To-day nearly all the political economists have become evolutionists. They do not condemn or approve—they seek to understand. The trade union has come up through struggle and conflict. It carries the marks of these conflicts. It is a survival of the fittest and seems destined to stay. If its methods change, as they are changing, it is because different methods enable it to live. It has claws and teeth, but it has sympathy and self-sacrifice. Its changing methods depend on the changing methods of its opponents and changing attitude of the general public.

How this sympathy originated, how it extended to the wage earner, how far it has gone, how it has affected legislation and the courts, these are the historical problems that reveal the environments within which trade unionism has struggled for existence. The social environment has changed and the methods of labor organizations have changed. The present condition of both can be understood only as we see out of what they have come.

In no country is the labor problem more complex or varied than in the United States. Sectional divisions, race divisions, protective tariffs, immigration and the most extreme vacillations of prosperity and depression have contributed to the result as we find it. Serious-minded people of all classes are awakening to the need of more light on every phase, factor and detail of the movement. The spectacular and personal elements have held the foreground, but the labor movement is an uprising of the masses, and the leaders and agitators are products as well as causes. To what it is tending, what the outcome shall be, is of living interest to workmen themselves, to their employers, and to that indefinite body, the general public, that sooner or later is drawn into the movement. This is the task set before those who, in the true historical spirit, would contribute their share toward aiding the future to build on the past.—*Professor John R. Commons*.



OFFICIAL JOURNAL OF THE

INTERNATIONAL

Brotherhood of Electrical Workers

PUBLISHED MONTHLY.

P. W. COLLINS - Publisher and Editor
509-10-11 Corcoran Building, Washington, D. C.

EXECUTIVE BOARD.

Grand President—F. J. McNulty,
509-10-11 Corcoran Bldg., Washington, D. C.
Grand Secretary—P. W. Collins
509-10-11 Corcoran Bldg., Washington, D. C.
Grand Treasurer—F. J. Sheehan,
86 North Street, New Britain, Conn.

GRAND VICE-PRESIDENTS.

First District—J. J. Reid.
Second District—E. T. Mallory,
987 Washington Street, Boston, Mass.
Third District—E. P. Allman,
P. O. Box 1488, Pittsburg, Pa.
Fourth District—Dale Smith,
208 Adams street, Memphis, Tenn.
Fifth District—F. G. O'Connell,
17th Street and Cass Avenue, St. Louis, Mo.
Sixth District—J. P. Connor,
Union Depot Hotel, Dallas, Texas.
Seventh District—M. J. Sullivan,
233 Fulton Street, San Francisco, Cal.

Subscription, \$1.00 per year, in advance

As THE ELECTRICAL WORKER reaches the men who do the work and recommend or order the material, its value as an advertising medium can be readily appreciated.

WASHINGTON, D. C., NOVEMBER, 1905

JOHN MORRISON, Special Advertising Agent,
25 Third Avenue, New York City, N. Y.

This Journal will not be held responsible for views expressed by correspondents.

The Third of each month is the closing date; all copy must be in our hands on or before.



THE SUDWARTH PRINTING COMPANY.

CHARTERS GRANTED IN OCTOBER

No. 48—Shawnee, O. T. Organized by F. M. Peyton.

No. 339—Ft. William and Pt. Arthur, Ontario, Canada. Organized by F. J. Sweek.

No. 30—Boston, Mass. Organized by E. T. Mallory.

No. 457—Altoona, Pa. Organized by J. J. Reid.

A GOOD union man only finds a fault when there is a fault to find.

MANY men holding membership in labor organizations are continually finding fault with everything and anything.

THE report of the special auditing committee appointed at the convention will be mailed to each local union in a few days.

JUST to be in style, vote for the enemies of organized labor on election day. Then condemn them all the rest of the year.

As we grow older we grow wiser. Have you read the Constitution as amended at the Louisville convention carefully? If not, do so at once.

LOOK out for the fellow who is always bragging about his unionism. A good union man knows his duty, performs it, and allows others to eulogize him.

It is said that "birds of a feather flock together." Perhaps that accounts for the deplorable condition of the labor movement in several cities throughout the country.

THE financial itemized statement of the income and expenditures of the Brotherhood, will hereafter be printed in pamphlet form and mailed to each local union every three months.

NOV 1905

NBU 1905

THE best recommendation a man can show to prove his mechanical ability, outside of a practical test, is a paid-up union card of the organization of his respective craft. If the employers would give that fact a fair test their profits would be larger at the end of each year.

WE are at present negotiating with several bonding companies for a blanket bond to cover all grand and local officers.

Several bids have been received up to date, and as soon as the Executive Board acts on same, all locals will be notified. In the meantime any local union about to bond the financial officers will please communicate with us.

THE official proceedings of the Ninth Convention were to be printed and delivered to us, according to understanding with the contracting printer, on or before October 12th; they were not finished, however, until November 1st, hence the delay in the delivery.

They are now en route to the general office, and a copy will be mailed to each local union, as soon as possible.

OWING to the many changes caused by the vacancies, etc., in lists of local union officers as published in the previous issues of the WORKER, it is necessary that the same be revised and an accurate and convenient directory be compiled. It is the intention to publish this directory in pocket form, making it a valuable acquisition for each member, and a saving of \$2,000 per annum to the I. B.

WE have received through the courtesy of the editor the first five original copies of *Eltradian*, the official journal of the electrical workers of Great Britain and Ireland.

It is a pleasure for us at this time to give our hearty endorsement to our

fellow workers on the other side of the Atlantic, and our appreciation of the merit in their endeavors, as expressed through their publication, assures us that its existence shall be happy and prosperous.

We wish it success.

WE note with pleasure the very many splendid articles in the November issue of the *American Federationist*, and would recommend to all trades unionists a careful perusal of its contents. It is by constant acquaintance with the thought and intellect of the movement that familiarity with the questions of moment—effecting us all—is attained. By constant research, by careful study, and with the desire to advance the cause we represent, comes results that are invaluable to the trades-union movement, and the expression of sound, logical and clean ideas is a factor in the betterment of man.

A LIST of all local unions in arrears for per capita tax will be published monthly, in the ELECTRICAL WORKER, commencing with the December issue.

Any local union two months in arrears to the general office shall, after one month's notice, be suspended, and shall forfeit its charter; notice to be sent to president, vice-president, recording secretary, and financial secretary, according to their respective addresses.

Traveling cards issued by delinquent local unions will not be accepted when presented for admission to another local union.

It, therefore, behooves all members to see that the per capita tax of their local is paid promptly each month.

WE call the attention of all members and local unions to the following, a copy of which was sent to all local unions some time ago:

When a traveling card is issued mail post card No. 1.

NOV 1905

On the first day of the month after a traveling card has been deposited, mail post card No. 2. Should a traveling card be issued, and the holder renews same, post card No. 2 of the old one and post card No. 1 of the new one must be mailed at once.

HOW THE NEW STYLE TAVELING CARD SYSTEM WILL WORK.

On May 1st, John Doe, a member of Local No. 1, in good standing, applies for a traveling card in accordance with Section 1, Article 14, of the Constitution, to expire June 30, 1905.

The Financial Secretary will fill out the new card in the same way the old style card was filled out.

He will fill out postal card No. 1, which is attached to the top of the new traveling card, detach same, and drop in mail box the same day.

When postal card No. 1 is received in the general office it is placed on a special file.

John Doe goes to Norwalk, Conn., and presents his traveling card to Local No. 472 on May 15, in accordance with Sections 4 and 8 of Article 14. If the brother has conformed to the laws governing traveling members, and his card has been duly accepted, the Financial Secretary of Local No. 472, on the first day of June, will fill out postal card No. 2, which is attached to the bottom of the new traveling card, detach same and drop in the mail box.

When we receive postal card No. 2 in the general office, we go to our files, find postal card No. 1, compare them, and then go to our books, make a record of the fact that John Doe on May 1st took a traveling card out of Local No. 1, and deposited it in Local No. 472 on June 1, 1905.

We then send a special notice to Local No. 1, that John Doe has deposited his traveling card in, and same has been regularly accepted by, Local No. 472, Norwalk, Conn.

You will note that the system is a very simple one, and one that will

eliminate nine-tenths of the complications that arise under the present system over traveling cards. The bulk of the work will fall on the general office, and if we do not attend to our part you will know where to place the blame.

All Financial Secretaries will enter on the back of their monthly reports a record of all brothers taking out traveling cards. This will only be for a short time, if the system proves successful. The only thing that can prevent it from being successful is the failure of the secretaries to fill out the postal card and mail it when they issue a traveling card or their local union accepts one.

Should John Doe desire to leave the jurisdiction of Local No. 472 before the first of June, he will receive the same card deposited, but should he desire to leave after the first of June, the secretary must give him a new traveling card, and return postal card No. 2 of the old card and No. 1 of the new one to the general office, for which he will have to pay the sum of 10 cents and a month's dues for June, less thirty cents, the amount of his per capita tax, which was paid for the month of June by Local No. 1.

He can then apply to Local No. 1 for the amount of dues less the per capita tax he paid to that Local for that month (Sec. 4, Article 14).

The system will keep us in touch with all traveling members at all times, and although it will cost us a little more financially, it will enable us to place the blame where it properly belongs when any mix-up occurs over a card, and will save us hundreds of members every year that we are losing through Financial Secretaries not attending to the duties of their office properly in regard to traveling cards.

WHAT is the cause of the lack of interest displayed by so many of our members towards the welfare of the Brotherhood?

Can it be that they are not satisfied with the progress we have made? If that is the reason, have they devoted

NOV 1905

any of their spare moments to the study of the obstacles we are compelled to overcome in our efforts to better their conditions?

If they did, instead of being dissatisfied, they would come to the conclusion that we have accomplished considerable for the moral, intellectual, and financial welfare of the electrical workers, and put their shoulder to the wheel and help us keep it moving in the right direction.

Let such men look back a few years ago, and compare the general conditions of the electrical worker then with his condition to-day. In many cities we will find that wages have been increased over fifty per cent, the work-day reduced by two hours, the elimination of unnecessary work on Sundays, legal holidays and at night. Such conditions mean opportunities for intellectual development, more home happiness, peace of mind, enjoyment, and rest.

Can any man honestly expect more from a labor organization, or has any labor organization accomplished more for its members in the short period of fourteen years?

It is quite true, there are many cities throughout our jurisdiction where we have not made such progress, but who is to blame for that? Not the Brotherhood. The blame, if any exists, lays in the cities referred to. Just think for a moment how many unconstitutional and unnecessary strikes we have been involved in during our existence. Do you think they were beneficial to us? Strikes are a necessity in the labor movement, and must be resorted to at times, but I maintain that they should occur only as a last resort, when we have a just grievance.

Our energies are being used at present to a great extent to the building up of local unions that have been weakened through the effects of those uncalled for strikes.

If our disinterested brothers would also consider the kind of opposition we had to contend with in the past, they would no doubt change their attitude towards the welfare of the Bro-

therhood and pitch in and help us instead of continuously finding fault.

Over one-half of our members are employed, where there are no other mechanics employed. That means they are compelled to depend solely on their own resources when dealing with unfair employers. They are not given the same consideration as most other mechanics receive from their employers when they present a just grievance, as a rule, for several reasons. One of which is, that they (the employers) know they can get non-unionists to work in times of difficulty on jobs where no other organized wage-earners are employed more readily than they could otherwise.

They are also aware of the fact that we are not as well organized as we should be, and are determined to check our progress as much as possible, knowing full well the power that our Brotherhood will be when we are in control of eighty per cent of the electrical workers in the United States and Canada. Many of the dissatisfied Brothers are of the opinion that the national officers are to blame for the local conditions, believing that they do not give sufficient attention to their locality.

This is a wrong impression to have, as the success of a local union depends solely on its members. If they are dissatisfied with everything in general and have not enough interest in the welfare of their union (which is their own welfare to a great extent) to help build it up to a sound basis; they cannot consistently expect their national officers to come to their city and preach to them what common-sense teaches all of us, as the national officers' time is taken up in helping local unions that are endeavoring to help themselves.

Let us all examine our conscience, and honestly see if we have done our duty to the Brotherhood. If we find we have been derelict in any way, let us make an effort to do better in the future. If we will all do that, there will be no lack of interest displayed by us towards our locals or our Brotherhood.

NOV 1905

INFORMATION GIVEN—WANTED

Mrs. Offerman, 700 Macomb street, Detroit, Mich., wishes to know whereabouts of Jack Mahony.

Wanted address of Sam Jeffries, last heard from 1903 in Wheeling, W. Va., by his mother, Gray Summit, Mo.

Bro. Tim Linehan lost his traveling card No. 69,352, issued by Local No. 45 September 28, 1905. The card was lost around Lockport, N. Y.

All inside wiremen desiring to travel should cross New Orleans, La., off the list, as Local No. 130 is involved in a lock-out. The non-union shop is the issue.

Anyone knowing the whereabouts of Ben Williams, last heard of in Chicago, will please notify the recording secretary of Local No. 465, of San Diego, Cal.

Any one knowing the whereabouts of Harry Brotherton will confer a favor by communicating with J. A. Colbert, F. S. No. 25, as his family is very anxious to hear from him.

Information in regard to Jess Bateman, who left Zanesville, Ohio, about 1896, is solicited by his brother, Perry Bateman, Local No. 39, Army and Navy Hall, Cleveland, Ohio.

Any member knowing the whereabouts of Bro. W. C. Rice, Card No. 49,890, will kindly send information to F. L. Glant, R. S., Local No. 225, 213 E. 3d street, Topeka, Kans.

Will Bro. Ed. McNeil, who was with Bro. Jack Goodwin at the time of his injury in Youngstown last June, kindly communicate with me at once?

Important. Jas. W. Thomas, President No. 62, Iron City Hotel, Youngstown, Ohio.

Card No. 51,286, lost by Bro. Jos. H. Alandar between Buffalo, N. Y., and Cleveland, Ohio. Any brother who can give any information as to the same will oblige Bro. Alandar by writing to 669 Omaha street, Cincinnati, Ohio, his home address.

The lock-out of Local No. 3, New York city, is still on, and members who are under the impression that the same is settled will be doing Local No. 3 and the International Brotherhood a valued service by remaining away from New York city until the difficulty is over.

Information wanted as to the whereabouts of Tom MacDonald, a lineman, last heard from three years ago, when working for the special fire alarm in New York city. Important news awaits him, and any information will be thankfully received by A. MacDonald, 350 East 15th street, New York city.

Killing Insect Pests by Electricity.

A series of successful experiments have been made for destroying insects injurious to the products of the soil. An engineer at Monaco was the first one to have his attention called to it while he worked with an electric machine in the open air. He observed that metal rods, which were put into the ground and were then connected with a dynamo of 110 volts, made insects in the vicinity leave their hiding places in the ground. He argued that electricity might therefore be used on a large scale to kill these insects, which all came in great haste to the surface. It is probable that for the killing of various kinds a different voltage should be used. Further experiments must be made to this end.

An apparatus is mentioned, invented by a Russian, for killing injurious insects by electricity. A dynamo is so placed upon a hand car that no electricity is engendered while the car is standing still.

NDV 1905

CONVENTION EXPENSES.

Amount Allowed for Per Diem from Convention Fund.

NAME	AMT.	NAME	AMT.
G. A. Kelly.....	\$30.00	J. Fitzgerald.....	30.00
F. Kinsley.....	30.00	J. J. Reid.....	30.00
J. T. Kelly.....	30.00	J. R. Curry.....	30.00
L. O. Arment.....	30.00	J. Hodgson.....	30.00
J. T. Kline.....	30.00	J. Hirshvogel.....	30.00
H. Myers.....	30.00	C. J. Quackenbush.....	30.00
J. A. Norton.....	30.00	W. M. Graham.....	30.00
J. Ryan.....	30.00	C. P. Lofthouse.....	30.00
J. P. Noonan.....	30.00	J. W. Thomas.....	30.00
J. Morrison (No. 3's Delegates).....	180.00	S. Smith.....	30.00
J. E. Brown.....	30.00	J. H. Shipps.....	30.00
T. A. Connelly.....	30.00	G. G. Macy.....	30.00
W. H. Raff.....	30.00	J. S. Gibbs.....	30.00
J. L. Collins (No. 9's Delegates).....	120.00	E. P. Steen.....	30.00
C. A. Sales.....	30.00	R. Tomlin.....	30.00
F. T. Brooks.....	30.00	J. T. Brownell.....	30.00
E. Lloyd.....	30.00	F. J. Carlin.....	30.00
S. D. Young.....	30.00	G. W. Walters.....	30.00
R. A. Ross.....	30.00	C. A. Hardy.....	30.00
F. Best.....	30.00	J. E. Murphy.....	30.00
H. Fisher.....	30.00	W. C. Aris.....	30.00
Geo. Burns.....	30.00	B. C. Hackett.....	30.00
W. H. Coleman.....	30.00	F. L. Witters.....	30.00
A. S. Nathanson.....	30.00	G. Olwell.....	30.00
H. C. McClenahan.....	30.00	T. J. Cleary.....	30.00
F. Flanagan.....	30.00	F. Glynn.....	30.00
J. McCauley.....	30.00	D. Ryan.....	30.00
E. Nelson, Jr.....	30.00	J. B. Salern.....	30.00
W. E. Kennedy.....	30.00	O. Pratz.....	30.00
J. A. Connelly.....	30.00	S. A. Strout.....	30.00
D. McOdrom.....	30.00	J. S. Meade.....	30.00
G. W. Spillinan.....	30.00	W. Goodshall.....	30.00
W. M. Welsh.....	30.00	M. Birmingham.....	30.00
J. C. Wolfe.....	30.00	D. McDonald.....	30.00
W. M. Woode.....	30.00	S. Jacobson.....	30.00
J. H. Berkeley.....	30.00	J. J. McLaughlin.....	30.00
C. W. Higgins.....	30.00	P. W. Collins.....	30.00
C. S. Kettering.....	30.00	E. T. Mallory.....	30.00
F. O. Hutton.....	30.00	J. L. Brown.....	30.00
H. Demme.....	30.00	E. Love.....	30.00
T. C. Moore.....	30.00	F. H. Weaver.....	30.00
A. W. McIntyre.....	30.00	F. J. Creenan.....	30.00
J. Aubrecht.....	30.00	H. M. Scott.....	30.00
G. H. Gleason.....	30.00	P. A. Holt.....	30.00
F. J. Sullivan.....	30.00	S. H. Cleary.....	30.00
W. Dorsel.....	30.00	W. R. Heales.....	30.00
Geo. King.....	30.00	S. G. Clissold.....	30.00
C. D. Mills.....	30.00	T. Beauming.....	30.00
F. H. Kenney.....	30.00	L. A. Berg.....	30.00
J. Desmond.....	30.00	A. A. Hall.....	30.00
C. W. Brown.....	30.00	C. M. Bloomfield.....	30.00
B. Wilkes.....	30.00	S. A. Grimblott.....	30.00
R. E. Perrin.....	30.00	C. L. White.....	30.00
E. Hayes.....	30.00	J. K. Packard.....	30.00
L. F. Gill.....	30.00	J. Fleming.....	30.00
W. A. Bamford.....	30.00	J. M. Waldron.....	30.00
J. A. Pilger.....	30.00	W. P. Foote.....	30.00

NOV 1905

Per diem Expenses—(Continued).

NAME	AMT.	NAME	AMT.
E. M. Grimsley.....	30.00	C. A. Duck.....	30.00
R. J. Gilmore.....	30.00	W. W. Wade.....	30.00
W. Coyle.....	30.00	H. M. Smith.....	30.00
H. L. Worthington.....	30.00	E. S. Jones.....	30.00
P. O. Peterson.....	30.00	C. L. Caulfield.....	30.00
J. A. Ingalls.....	30.00	J. L. Collins.....	30.00
C. G. Foster.....	30.00	P. T. McDonald.....	30.00
A. F. Lynch.....	30.00	G. J. Turner.....	30.00
O. Bauer.....	30.00	R. E. Dresser.....	30.00
J. W. Driver.....	30.00	J. Ferguson.....	30.00
Geo. Henners.....	30.00	C. F. Drollinger.....	30.00
W. D. Farrell.....	30.00	F. J. Schodel.....	30.00
W. D. Mulnix.....	30.00	H. Tripp.....	30.00
G. F. Koehler.....	30.00	W. A. Shelton.....	30.00
L. H. Allen.....	30.00	O. Deirn.....	30.00
W. H. Riggs.....	30.00	A. J. Berl.....	30.00
C. L. Hamilton.....	30.00	J. J. Lamb.....	30.00
W. M. Childs.....	30.00	S. J. Fay.....	30.00
J. F. Hogan.....	30.00	W. P. Hayden.....	30.00
J. Rogers.....	30.00	J. H. Mohan.....	30.00
J. A. Cullen.....	30.00	F. B. Doten.....	30.00
C. A. McDougall.....	30.00	S. C. Grasser.....	30.00
W. W. Morgan.....	30.00	C. M. Smith.....	30.00
W. H. Curtis.....	30.00	J. A. Pierce.....	30.00
A. F. Roby.....	30.00	C. Quinn.....	30.00
D. Harper.....	30.00	E. V. Higgins.....	30.00
G. Cotton.....	30.00	J. E. Baker.....	30.00
J. Auer.....	30.00	J. S. Milne.....	30.00
R. J. Clarke.....	30.00	F. F. Lampkin.....	30.00
F. Lockridge.....	30.00	P. E. Allen.....	30.00
R. Lindsay.....	30.00	D. Cole.....	30.00
J. N. Welsh.....	30.00	J. E. O'Connor.....	30.00
F. B. Long.....	30.00	T. B. Wolford.....	30.00
J. Callahan.....	30.00	E. Hartnett.....	30.00
F. N. Ross.....	30.00	J. M. Kossenjans.....	30.00
T. Jessups.....	30.00	T. Wheeler.....	30.00
C. P. Ford.....	30.00	E. Lucas.....	30.00
J. W. Hilton.....	30.00	F. D. Ward.....	30.00
F. Fisher.....	30.00	A. Strauss.....	30.00
J. Crowley.....	30.00	W. F. Burns.....	30.00
H. T. Morgan.....	30.00	W. M. Harling.....	30.00
W. L. Mayer.....	30.00	J. M. Franks.....	30.00
B. A. Cawley.....	30.00	L. Stevens.....	30.00
G. L. Fairchild.....	30.00	R. Clarke.....	30.00
C. E. Redding.....	30.00	D. Smith.....	30.00
J. B. Dougherty.....	30.00	F. J. McNulty.....	30.00
O. F. Dickey.....	30.00	F. C. O'Connell.....	30.00
F. D. Cooley.....	30.00	J. P. Conner.....	30.00
W. J. O'Leary.....	30.00	E. P. Allman.....	30.00
J. E. Barton.....	30.00	F. J. Sheehan.....	30.00
F. H. Welch.....	30.00	H. W. Sherman.....	30.00
T. Wilson.....	30.00	M. J. Sullivan.....	30.00
R. O. Dusk.....	30.00		
S. L. Ackerman.....	30.00		
C. N. Robinson.....	30.00		
			\$6,870.00

NOV 1905

THE ELECTRICAL WORKER.

41

Fares and Sleepers.

NAME	AMT.	NAME	AMT.
F. H. Kenney.....	\$31.69	F. M. Ross.....	14.72
G. A. Kelly.....	14.92	D. Ryan.....	36.25
F. P. Kinsley.....	14.92	C. E. Redding.....	34.25
C. S. Kettering.....	13.12	C. Robinson.....	31.10
J. Kossenjans.....	14.92	E. J. Russell.....	52.64
G. F. Koehler.....	13.67	J. J. Reid.....	22.04
G. C. King.....	20.72	A. F. Roby.....	27.58
J. T. Kelly.....	14.92	J. Rogers.....	32.10
W. E. Kennedy.....	29.59	H. Reed.....	6.97
W. A. Kent.....	19.22	W. H. Rapp.....	26.70
C. A. McDougall.....	102.33	R. A. Ross.....	26.70
A. W. McIntyre.....	21.39	A. H. Roseman.....	5.53
J. Meade.....	27.60	J. A. Pelgar.....	9.45
D. McOdrom.....	30.70	O. T. Pratz.....	33.92
J. S. Milne.....	63.30	W. C. Pearce.....	30.79
J. McAuley.....	34.25	B. C. Hackett.....	29.67
W. Mayer.....	63.83	E. L. Howard.....	14.30
T. Mohan.....	30.00	C. W. Higgins.....	37.99
D. McDonald.....	41.58	M. Hunt.....	26.70
T. C. Moore.....	21.39	F. Hodgson.....	26.65
S. F. Messer.....	21.72	J. Hodgson.....	170.25
J. E. Murphy.....	31.44	D. Harper.....	20.92
C. D. Mills.....	29.58	Geo. Himes.....	63.30
G. G. Macy.....	48.92	J. F. Brownell.....	118.42
H. C. McClanahan.....	29.60	A. Beil.....	28.55
P. C. McDonald.....	23.30	H. A. Brock.....	31.25
H. T. Morgan.....	28.92	F. Best.....	36.00
W. D. Mulinix.....	14.28	C. W. Brown.....	24.72
H. Myers.....	79.80	J. E. Barton.....	99.50
W. W. Morgan.....	140.70	J. L. Brown.....	40.51
E. S. Jones.....	70.08	W. Bamford.....	36.00
L. R. Jacobson.....	19.05	F. F. Brooks.....	14.76
T. Jessup.....	46.13	W. H. Riggs.....	140.70
J. Ingalls.....	7.28	J. E. Baker.....	117.70
J. Morrison (No. 3's Delegates).....	196.00	T. Beanning.....	11.18
F. Sullivan.....	21.40	M. Birmingham.....	41.58
S. Smith.....	84.75	E. S. Boylan.....	37.95
G. W. Spillman.....	30.70	H. T. Burns.....	8.35
I. Simpson.....	24.65	J. Brown.....	26.70
S. Straub.....	41.57	C. Bloomfield.....	14.92
J. B. Salern.....	38.25	J. P. Brown.....	14.62
G. M. Sartain.....	3.25	J. H. Berkely.....	4.95
W. Shelton.....	11.65	L. A. Berg.....	18.87
A. Strauss.....	35.52	R. J. Clarke.....	58.83
F. Seamon.....	7.32	C. T. Caulfield.....	159.00
H. M. Scott.....	95.30	J. Crowley.....	35.98
E. P. Stein.....	59.42	J. F. Creenan.....	26.78
J. H. Shipp.....	40.10	W. Coyle..... }	199.00
C. M. Smith.....	28.90	P. O. Peterson..... }	
J. H. Schodell.....	24.91	W. H. Coleman.....	28.25
H. M. Smith.....	33.59	B. A. Cawley.....	26.70
L. C. Grasser.....	99.50	F. D. Cooley.....	14.91
S. Grimblott.....	14.92	W. H. Curtis.....	39.45
R. J. Gilmore.....	14.41	J. L. Collins.....	18.66
W. M. Grimm.....	43.30	W. M. Childs.....	11.79
E. M. Grimsley.....	25.60	C. Chandler.....	8.05
F. B. Glynn.....	25.55	J. Callahan.....	12.25
L. F. Glynn.....	10.29	R. Clarke.....	36.95
G. H. Gleason.....	21.39	J. E. O'Connor.....	29.99
W. S. Goodschall.....	27.33	S. G. Clissold.....	36.25
J. S. Gibbs.....	47.99	J. A. Cawley.....	30.70

Fares and Sleepers—Continued.

NAME	AMT.	NAME	AMT.
H. J. Carlin.....	19.26	W. J. O'Leary.....	14.92
J. A. Cullen.....	4.66	G. Olwell.....	23.13
S. H. Cleary.....	48.92	B. M. Vance.....	62.38
D. Cole.....	17.30	J. W. Thomas.....	14.72
B. Cawley.....	46.13	G. J. Turner.....	17.06
J. L. Collins, No. 9.....	14.90	H. Tripp.....	21.58
C. Carlson.....	28.32	J. Aubrecht.....	21.39
G. Cotton.....	19.26	L. H. Allen.....	84.30
M. Carey.....	14.92	C. R. Appleton.....	11.25
T. J. Cleary.....	46.13	S. C. Alsdorf.....	10.78
J. G. Desmond.....	25.31	L. O. Arment.....	14.92
H. G. Demme.....	39.75	P. Allen.....	46.13
J. W. Driver.....	31.25	S. L. Ackerman.....	34.25
C. A. Dutch.....	41.85	W. C. Aris.....	31.25
F. B. Doten.....	38.85	J. Auer.....	46.13
C. F. Drollinger.....	24.90	F. H. Welch.....	2.00
O. F. Dickey.....	6.85	G. W. Walters.....	140.70
R. E. Dresser.....	17.65	H. L. Worthington.....	99.50
W. Dorsel.....	28.25	J. W. Hilton.....	91.42
R. O. Dusk.....	26.05	W. M. J. Wood.....	31.19
J. B. Dougherty.....	38.95	B. G. Wilkes.....	30.70
(Advanced by A. W. McIntyre.)		W. W. Wade.....	10.25
C. M. Dougherty.....	24.58	T. B. Wolford.....	36.65
(Advanced by A. W. McIntyre.)		T. Wheeler.....	21.39
C. Crampton.....	16.48	F. L. Witters.....	18.32
J. P. Conner.....	37.80	J. M. Waldron.....	36.78
E. T. Mallory.....	50.21	T. S. Wilson.....	29.58
M. J. Sullivan.....	97.50	J. C. Wolf.....	29.94
F. J. McNulty.....	29.59	C. L. White.....	14.92
D. Smith.....	29.59	M. A. Welch.....	14.92
F. G. O'Connell.....	14.92	J. R. Tillotson (adv. by C. L. White)	37.98
F. J. Sheehan.....	33.98	W. W. Welsh.....	31.19
W. M. Hurling.....	10.81	J. W. Welch.....	20.25
J. K. Packard.....	29.92	F. B. Long.....	28.45
C. M. Paulsen.....	14.90	A. F. Lynch.....	29.67
R. C. Perrin.....	37.90	E. E. Love.....	20.78
J. A. Pearce.....	93.41	F. F. Lampkin.....	22.90
C. J. Quackenbush.....	25.72	C. P. Lofthouse.....	93.42
C. Quinn.....	42.38	E. Lucas.....	23.18
J. Fitzgerald.....	27.38	E. Lloyd.....	22.38
R. Tomlin.....	30.29	F. Lockrige.....	4.92
J. G. Foster.....	36.65	R. Lindsay.....	22.28
F. Flanagan.....	30.25	J. J. Lamb.....	14.92
S. M. Franks.....	30.92	W. R. Heales.....	159.50
H. Fisher.....	5.25	J. F. Hogan.....	99.50
J. Ferguson.....	26.78	F. O. Hutton.....	91.42
F. J. Fennell.....	14.92	E. W. Higgins.....	15.80
S. Fay.....	14.80	E. J. Hayes.....	14.92
F. Fisher.....	11.05	E. F. Hartnett.....	33.05
G. L. Fairchild.....	34.25	C. A. Hardy.....	22.12
A. D. Farrell.....	23.93	P. A. Holt.....	7.15
W. R. Foote.....	37.79	W. P. Hayden.....	34.66
J. Fleming.....	46.13	W. M. Harding.....	20.53
J. A. Nutt.....	33.48		
A. S. Nathanson.....	31.33		
S. M. Neff.....	14.92		
			\$8,298.40

NOV 1905

NOV 1905

Miscellaneous Expenses.

N&ME	AMT.	ITEM
Constitution Committee.....	\$804.50	Expenses.
F. Flanagan.....	4.00	Balance railroad fares.
G. J. Turner.....	2.26	Balance railroad fares.
C. A. McDougall.....	6.25	Balance railroad fares.
E. S. Jones.....	23.42	Balance railroad fares.
G. C. King.....	4.00	Balance railroad fares.
J. J. McLaughlin.....	14.50	Balance railroad fares.
E. T. Mallory.....	3.50	Balance railroad fares.
F. O. Hutton.....	8.08	Balance railroad fares.
F. D. Ward.....	22.40	Balance railroad fares.
A. W. McIntyre.....	1.70	Balance railroad fares.
O. Bauer.....	1.35	Balance railroad fares.
J. E. Wolf.....	.75	Balance railroad fares.
Smith and Duggan.....	56.50	Printing.
H. H. Ellis.....	40.00	Printing.
E. P. Allman.....	29.59	Fares and Sleeper.
H. Weaver.....	138.25	Hall rent.
G. Coleman.....	117.25	Fares and Sleeper.
H. W. Sherman.....	29.59	Fares and Sleeper.
C. W. Brown.....	30.00	Fares and Sleeper.
J. B. Dougherty.....	7.65	Balance fares.
C. D. Mills.....	25.00	Sergeant-at-Arms.
J. H. Berkely.....	25.00	Sergeant-at-Arms.
J. Ryan.....	12.00	Sergeant-at-Arms.
F. L. Witters.....	2.15	Balance fares.
Walker Williams & Co.....	666.00	Taking stenographic notes.
H. H. Ellis.....	815.00	Printing proceedings.
Total.....	\$2,998.70	

Fortunes Made Through Inventions.

When one looks over the field of inventive effort and marks the great profits made by inventors through their discoveries, sometimes obtained so easily, the wonder is that there are not more workers in this line.

Sometimes governments buy the inventor's idea, and when this happens a good round sum is usually forthcoming. The British postal authorities paid \$25,000 for the idea of perforating postage stamp sheets, which before the perforation came were cut apart with a pair of scissors.

Huntley Webb sold an unpatented idea for an electric motor for \$45,000, but had he obtained a patent he might have become a millionaire. The writer was recently told of a man who is receiving yearly \$200,000 in royalties from a harvesting apparatus, and he knew another inventor who got \$25,000 for a cotton bale strap.

Although there have been many profitable inventions there is room for thousands more, and will be for many years. During the course of this country's splendid inventive progress millions upon millions of dol-

lars have been put in circulation and by this means great enterprises carried out; in fact, the chariot of industry has been and is being driven by the genius of invention.

George Westinghouse was an inventor-promotor of the first class. It is well known that he has made millions from his air-brake. His efforts in this work for some time were not rewarded, but a great corporation was finally organized, and with the new Bessemer steel rail the invention aided immensely in the industrial advancement of the United States.

From the Bell telephone Edison learned a lesson in the matter of making money. Bell's apparatus was perfected by inventions of Berliner and Edison. The latter received one hundred thousand dollars and later his apparatus was sold to the Bell Company for eight hundred thousand dollars. The wonderful success of the telephone taught Edison afterwards to do his own promoting.

If the inventor could always be his own promoter there would be many millionaires in his own line of work, but while Edison

NOV 1905

and some others have thus been successful the great body of inventors do not understand this feature of business. The first thing necessary in this matter is to get the invention protected, then, if the inventor is not capable of getting through his own effort the value of his product, he should seek the business assistance of a reputable promoter. The advisability of this is evident in what has been accomplished in the past in this respect.

To go back to the success of the telegraph, we find here a few men who had faith in Morse's invention; they pushed the matter forward and great results were obtained. When Morse died he left an estate of \$524,000, not small gain for an invention in the early days of the telegraph. Later Cyrus W. Field took up the ocean telegraph; failure at first followed, but through the inventive genius of Lord Kelvin the necessary apparatus was perfected and the result was a huge benefit to mankind and the making of millions of money.

As to the amount of money (aggregate) made by inventors from their ideas no one can give even an idea, but, of course, the sum is enormous. Yet we know something about the inventions that have been of most benefit to man. Among these are the telegraph, the cotton gin, the telephone, the electric light, the sewing machine, the reaper and binder, the typewriter, the power press, the electric motor appliances, photographic improvements, typesetting machines, wireless telegraphy, processes of steel manufacture, process of oil refining, dye-making and India rubber manufacturing processes.

A rather remarkable statement concerning making money out of patented inventions was made not so long ago. This was, that women inventors were proportionately more successful in selling their product than men. This may or may not be true. However, there are some successful women inventors. One invented a gas meter for which the Paris, France, gas company paid thousands of dollars in royalties. Another conceived the idea of a new car coupler and yet another brought forth the idea of a bullet-proof shield. Other women have produced valuable inventions, some of which were made by an English lady embracing new methods of welding steel and originating several steel processes.

The discoverer of the process for refining crude oil was offered \$1,000,000 by the Standard Oil Co. for it. This, it is said, was refused, but the amount was increased by other parties; so this inventor was entirely justified in his faith in his own work. But a different case was that of a western divine who thought out a device for preventing collisions on railroads. This was thought by railway officials to be of value,

and \$50,000 was offered for it, but the inventor wanted \$1,000,000 which he did not get; and still the railroads are unprotected.

One of this country's most prolific inventors, Mr. J. E. Crandall, made a great deal of money out of patents for toys, inventing more than one hundred different things and taking out over 140 patents. Here was a case of hard, faithful effort and it won. But not infrequently the inventor with apparently little efforts has an idea that very soon after its conception is turned into cash. John Ruthin sold a bare unpatented idea almost as soon as it was born for \$15,000. It was a safety valve now used everywhere, and had he patented it, the royalties for its use would have yielded a large sum.

The paper clip, designed to hold together a few sheets of paper in the average office, presents more variety of forms than any other individual thing in office supplies. Each of these forms of the clip represents a patented idea over which some one has spent time and money. At the best such a mechanism accomplishes only the purpose of holding the few sheets of paper together, generally for a short time.

It is recognized that in the simple, small invention that will cost 2 to 5 cents, perhaps, and retail at a quarter, the greatest money may be made. The man who invented and put the first simple paper clip upon the market made his fortune out of the idea. But it must be supposed that some of his imitators in that line have had poor picking over the same general field, even though the first clip form and plate material long ago was abandoned for the smooth wire material.

There are hundreds, yes, thousands of cases where fortunes have been made from small inventions, but a large proportion of these have not been heralded in the press as has the inventive efforts of Edison, Bell, Pupin and others of national fame in the inventive field. The "small idea" often brings large monetary returns, sometimes bringing in more wealth than the big complicated machine, yet the great inventive enterprise should not be neglected if one has the faculty for such. Possibly the largest sum gotten by an inventor for his patented idea was obtained by Pupin for his system for Trans-Atlantic telephony. Think of the money Thomas A. Edison has made out of his inventions. After he had perfected the electric current apparatus for subdividing the subtle fluid for incandescent light he promoted that enterprise and once said that it represented to him \$3,000,000, his first large capital; and this industry has created new wealth of about \$300,000,000 and is giving new employment to about one million people.—*World's Progress*.

NOV 1905

PRACTICAL INFORMATION ON CENTRAL STATION METERS

The greatest space occupied in the "Question Box" of the National Electric Light Association is that containing queries and answers relating to meters, no less than 63 pages being taken up by this department in the answer of 36 queries relating to all phases of the subject. The great diversity of opinion existing among practical men is shown most strikingly in the answers. Local conditions naturally are responsible in part for contradictory answers, but the conflicting opinions expressed without any statement of the conditions underlying them detract very materially from the value of the "Question Box."

Several queries to problems relating to prepayment and slot meters brought forth 12 answers. One central station man states that his experience with prepayment meters has been quite satisfactory; another that they are proving very valuable in building up a certain class of business, while a third said that his experience had been unsatisfactory, and a fourth reported that the largest gas companies are discontinuing their use. As to the effect on sales of slot meters, three replies stated that they increase sales, and a fourth gives the advice "Better put in a regular meter." Concerning the advisability of installing such meters for any consumer who wishes to have one, or to confine their use only to doubtful customers, two replies are to supply any customer who wants such a meter, and another that the largest field is in apartment houses.

No less than 32 answers were received to the very general query, "How to satisfy a customer that his meter registers his consumption properly." The gist of the replies is to show the customer how to read the meter, to explain to him what readings signify in lamp hours and dollars and cents, and to advise him to test the meter himself by burning a given number of lamps a certain period of

time and noting the reading. Additional advice is to show that jewel wear makes a meter run slow; to test the meter in the presence of the consumer by reference to another meter of known accuracy; to have the meter tested by a competent and impartial outside party; to test the meter in the consumer's presence with a portable ammeter and voltmeter; to install a recording wattmeter which indicates the number of lights burned at different times and how long they burn; to have fitted up in the office a meter with as much of the interior visible as possible and so connected or cut off at will, the consumer being invited to see the operation of the meter under the various loads and satisfy himself that it does not register without load; to send out pamphlets giving instructions for reading meters and for making approximate tests as to their accuracy; to encourage customers to read their own meters and to compute their bills.

Answers to the number of fourteen are offered to the query, "What effective means if any have been found to make it impossible for a customer to beat a recording wattmeter, or what special precautions can be taken by electric light companies to detect the same?" Among the remedies offered are inspection and systematic testing at regular intervals, most of the answers dwelling upon this means; running both leads into the meter with a shunt or crossed connection under the case; placing another meter for a period on a service pole as a hint to the suspected thief; keeping the main cut-out and service block as widely separated as possible; connecting direct to service wire or running leads in iron conduit to meter; enclosing the meter in a strong wooden box; locating closely rated enclosed fuses in enclosing wooden box; use of an all-glass cover; to require employes to report and watch suspected cases, reading the meters frequently; to require book-keeper to report abnormal reductions in bills.

NOV 1905

Eight opinions are expressed as to the percentage variation of meter readings allowable from no load to 50 per cent overload. Five favor two per cent, two three per cent and one "Not more than six per cent." The latter reply is from "Unsigned," and judging from the pessimistic views expressed on other topics over this signature, it appears to conceal the identity of one who has a grudge against the public, and who might well have been debarred from the company of the other 226 contributions to the "Question Box" who stand openly for their opinions. One opinion favoring two per cent allowance suggests five per cent for commutator meters from no load to 10 per cent load, and another allows five per cent for starting load.

On the matter of granting a rebate to a customer whose meter has been found to creep, out of 26 replies, 19 favor doing so, though some point out that an admission that a meter is incorrect may in cases prove damaging; three replies were non-committal and three are in the negative, including "Unsigned," who advises "Explain that the creeping has been effective only during the hours that the meter was idle (!), and that the result of the creeping during the month has an insignificant money value."

The effect on an alternating current meter of a 10 per cent change in frequency was the subject of 10 replies. Of two opinions without qualification, one was that the meter would run slow at a smaller and high at a greater frequency, and the other that the effect would be exactly the reverse of this. Three others state that induction wattmeters ran slow on higher, and fast on lower, frequencies; four replies are that there is no appreciable difference, and a fifth that "the meter will probably creep."

The reason why a slight vibration during 12 out of the 24 hours causes a meter to run slower was the subject of 26 replies, of which 22 ascribed the cause to abnormal wear on the jewels

and pivot, and four to sparking at the brushes in the case of a direct-current meter, which roughens the commutator.

Considerable diversity of opinion was expressed in reply to the query, "How often should consumers' meters be tested?" Of the 21 answers, the majority favored yearly testing, in some cases with the qualification that large meters should be tested several times annually. One advocated monthly tests, another quarterly and several half-yearly tests. One answer was that a commutator meter should be tested every four months, but that once in two years was sufficient for an induction meter, while another assigned nine months for the former and eighteen months for the latter case. One opinion was a test for every million revolutions. Several replies indicate that those answering had no fixed rule.

Fifteen replies as to the advisability of employing a meter man where there are 300 to 500 meters in use are unanimously in favor of having an experienced meter man on the station staff. As to the number of men required to handle a meter department of a station having 1,000 customers, two replies state that two men will be required; one says that several will be necessary, and five others that one man can attend to 1,000 meters. In one reply it is stated that one man can do all the reading and that if alone he can "go about quicker and will become more accurate." A company operating a 500-volt, direct-current, two-wire circuit for power loses from 10 to 15 meters in the spring from lightning discharges, although the lines, motors and meters are protected by lightning meters, and asked for a remedy. Of eight replies received, only two are to the point. One of these advises that meters be grounded, and the other recommends insertion of heavy reaction coils in both lines between the arrester and the meter.

NOV 1905

INFLUENCE OF TRADE UNIONS
ON IMMIGRANTS

September 8, 1904.

TO THE PRESIDENT:

Referring to your letter of August 4, transmitting a communication from Mary E. McDowell, appearing in the *Chicago Daily News* of Friday, July 29, and to your letter of August 10, inclosing an editorial from the *Chicago Tribune*, entitled "The Union and the Immigrant," and asking that in the investigation conducted relative to the meat strike in Chicago the statements in these two inclosures be investigated, I have the honor to report that they have been taken up by our agent, Mr. Ethelbert Stewart, with the following results:

The article of Miss McDowell and the editorial relate practically to one supposed influence of the trade unions among the foreign element employed in the packing business in Chicago. This influence is exceedingly interesting and throws a valuable side light on the whole question involved. The immigrant is, in the first instance, a wage-reducer, either directly or indirectly, although the extent of his influence upon wages cannot well be stated; but as a prospective wage-reducer he is met by the trade union in self-defense, just as the trade union meets female and child labor, except in this, the union seeks to organize the immigrants, while it seeks by legislation to prohibit or limit the work of women and children—that is, the union seeks the aid of the State to prevent wage reductions by means of female and child labor, and it seeks by organizing the immigrants to prevent reduction of wages by immigration. It makes no claim of undertaking any charitable or primarily civic education among the immigrants, but the secondary effect of the union on the immigrant is distinctively civic in character. It is the first, and for a time the only, point at which he touches any influences outside his clan. Even the progressive forces inside the nationality lines consider the immigrant

hopeless and seek only to reach his children—as, for instance, the officers of the Polish National Alliance direct their effort toward getting the Poles to send their children to American public schools and to have them mix up with and become a part of the whole people. The trade union, however, must deal with the immigrant himself, and the immigrant, when he learns that the union wants to raise his wages, decrease his hours of labor, etc., begins to see the necessity of learning the English language, of understanding the institutions he hears talked about in the union meetings, and other matters which interest him.

At the risk of taking up too much of your time, let me state a bit of history. From 1880 to 1886 the nationalities employed in the stock yards, in the order of their numerical importance, were Irish, Americans, Germans, and a few Scotch. The great strike of 1886 disrupted the only organization of workmen in the yards—that of the Knights of Labor—and after the failure of the strike a notable exodus of Americans and the more active men among the Irish began. Whether this was entirely voluntary, or in part resulted from activity in the strike, is not germane to this subject. The Poles began to come into the yards in 1886, after the settlement of the strike, but not as strike breakers. This appears to have been a voluntary immigration, increasing in volume until by 1890 the most of the unskilled occupations were filled by Poles, who by 1894 had practical control of the common labor.

The Bohemians began to affect noticeably the situation in 1894, going first into the inferior positions, which they shared with the Poles. There were two minor strikes between 1890 and 1894, which in a measure aided in bringing about this result. There was some movement upward among the Poles—that is, from lower to higher occupations, but not so marked as among the Bohemians. The Bohemians, coming in later, began under the

NOV 1905

Poles—that is, took the lower positions as the Poles went up, and divided the entire unskilled labor possibilities with the Poles. The Bohemians, however, soon outstripped the Poles in the movement upward from unskilled to skilled occupations.

The strike of 1894 unsettled these movements temporarily. Negro labor was employed to break the strike and has been an element in the situation ever since. In 1880 but one negro was employed in the yards, and he worked in Armour's killing gang. While few of the strike breakers of 1894 were retained, yet that event marks the real beginning of the employment of negroes. At the beginning of the present strike some 500 negroes worked in the yards, many of whom belonged to the union.

After the strike of 1894 was settled the Bohemians were introduced more rapidly, and this continued up to 1896. In 1895 the Lithuanians began coming in, followed by Slovaks in 1896, and this continued steadily until 1899, when the number began to increase rapidly. Two years ago an enormous influx of Lithuanians, Slovaks, and Russian Poles occurred, swamping the labor market in the yards. This was caused largely because of the threatening war between Russia and Japan, and the consequent rush of people to escape compulsory military duty. This has been appreciably checked within the last six or eight months.

The proportion of workmen of the various nationalities in the yards at the beginning of the present strike (July 12) was, approximately: Irish, 25 per cent; Americans and Scotch, about 2 per cent; Germans, 15 per cent; Poles, 20 per cent; Bohemians, 20 per cent. The remainder were Lithuanians, Slovaks, a very few Krains, and, among the most recent arrivals, Finns and Greeks, the latter, however, not being appreciable in number. No attention has been paid in this investigation to immigrants having a representation fewer in num-

ber than the Lithuanians and Slavonians.

Of these nationalities, excluding the Irish and Germans, which are not here considered as immigrants, the Bohemians are the most progressive, and have the industrial advantage in this, that many of the foremen are Bohemians and give preference to their nationality when taking on new men. There is no apparent surplus of Irish, Germans, Americans, or Bohemians in the labor market of the district affected, the surplus being composed of Poles, Slovaks, and Lithuanians.

Among all the immigrants mentioned, except the Irish and Germans, the clan spirit is at first all-powerful. The Bohemians, while Catholics, are Bohemian Catholics, and the Poles are Polish Catholics. This is even more true of the Lithuanians and the Slavonians, who are the most clannish of all. No doubt difference in language has much to do with this, but it is by no means the most serious feature. Each nationality has not only its own church, but its own school system, the Lithuanian schools making no pretense of teaching English, some of the teachers not being able even to speak it. The Slavs and Galicians have not as yet opened schools of their own. While the religion of these different nationalities may be said to be one, the associations are along exclusive nationality lines. They settle or rent properties by districts, and in branching out to occupy more territory one side of the street will first become Lithuanian for a block or so, and then the other side of the street will be occupied by the same nationality. The single men invariably board only in families of their own clan. Language has something to do with this, but really less than might be apparent on first consideration, and less than might seem to be true. When organizing building and loan associations, it is done along strictly clan lines. The Bohemians have four of this class of associations, the Poles three, and the Lithuanians one. The Slavs as yet

NOV 1905

have none. There are other clannish distinctions, as Lithuanian republican clubs, Lithuanian democratic clubs, Bohemian socialist clubs, Bohemian democratic clubs, everywhere and always along the strictest lines of nationality.

It is currently reported that before the organization of the union this condition occasionally threatened riots along clan lines, owing to the fact that foremen showed such preference for men of their own clan. The union was organized by trades and departments, and the officials refused to permit nationality lines to be recognized. In the sheep butchers' union are to be found all the men connected with sheep killing, regardless of nationalities. So severe was the fight made upon this plan by the clan leaders—those who drew emoluments or secured social prestige as leaders of the various strictly clan societies—and so seemingly insurmountable was the objection raised by the Lithuanians to the union that in 1900, when the Lithuanians were first organized, it was permitted in one case to organize a Lithuanian union. The experiment, however, was a signal failure. No subsequent experiments have been permitted.

The unions in the stock yards are controlled by the Irish, ably assisted by the Germans. As a Bohemian or a Pole learns the language and develops, he is elected business agent or other official. In the pork butchers' union, for instance, there are about 1,800 members, 600 of whom are Irish, 600 Germans, 300 Poles, and 300 Lithuanians and Slavs. This union recently elected a Pole as president of the local. In their business meetings the motions made, resolutions read, and speeches delivered are usually interpreted in five languages, though in some locals in only three. All business, however, is transacted primarily in English, although any member may speak to any motion in the language he best understands, his words being rendered into English for the minutes of the meet-

ings and into all the languages necessary for the information of members. It is here that the practical utility of learning English is first brought home forcibly to the immigrant. In all other of his associations not only does his own language suffice, but, for reasons that can be well understood, shrewd leaders minimize the importance of learning any other. (The only notable exception to this is the National Polish Alliance, and even here only the Polish language is used. There is no apparent influence exerted, however, to create the impression that the Polish is all-sufficient.)

In his trade union the Slav mixes with the Lithuanian, the German, and the Irish, and this is the only place they do mix until, by virtue of this intercourse and this mixing, clannishness is to a degree destroyed, and a social mixing along other lines comes naturally into play. Not only is the Amalgamated Meat Cutters' Union an Americanizing influence in the stock yards, but for the Poles, Lithuanians, and Slovaks it is the only Americanizing influence, so far as could be determined in this investigation. It is true this Americanizing is being done by the Irish and the Germans, but it is Americanizing nevertheless, and is being done as rapidly as the material to work on will permit, and very well indeed. Again, the reaction is good in its results. The feeling among the Irish against the Dutch and the Polack is rapidly dying out. As the Irish in Chicago express it, "Association together and industrial necessity have shown us that, however it may go against the grain, we must admit that common interests and brotherhood must include the Polack and the Sheeny." It is also admitted that when the speech of the Lithuanian is translated in the meeting of the trade union the Irish and the German see in it the workings of a fairly good mind. Some of the best suggestions come from Bohemians, and mutual respect takes the place of mutual hatred.

NOV 1905

The investigation disclosed the influence of the union in teaching the immigrant the nature of the American form of government. The records of this office, independent of this investigation, show that during an investigation of building and loan associations a few years ago information from the Bohemian, Polish, and other clannish associations of that character could be obtained only through the services of an interpreter. It was found that as soon as a Bohemian or a Pole heard the word "government," or "government agent," he closed his mouth, and it was impossible to secure any information.

This has been true in other investigations, notably in collecting family budgets; but with an intelligent interpreter, using their own language, the nature of the work was explained, and no further difficulty experienced. The union is breaking down this trait of character in the foreigners of the nationalities mentioned. This it is doing not as a matter of philanthropy, but from a selfish necessity. The immigrant must be taught that he must stand straight up on his own feet; that the ward politician is dependent on him—on his vote, etc.—and not he on the ward politician. In this way he first learns that he is a part of the Government, and while this is done by indirection, in a large sense, there is no other force that is doing it at all. The Pole, the Bohemian, the Lithuanian, the Slovak, and to a much lesser degree the Galician, have inherited the feeling that somehow government is a thing inimical to their natural development—a power forcing itself upon them from afar; an intrusive power for repression, taxation, punishment only; a thing which they must stand in awe of, obey, pay tribute to, and wish that it had not come among their people, even if they did not secretly hate it—a thing, in short, which ought not to be. Being weaker than it they must be silent in its presence, and if forced to speak, lie, as for them to tell the truth would mean imprisonment or death.

It is not necessary for these things to be true in order that the illiterate peasants should have believed them for generations. Seventy-five per cent of the stock-yards immigrants are of the peasant and agricultural laborer class of Europe, and comparatively few of them can read or write in their own language. To make such a people feel that the Government is their friend, that they are a part of it, that development and education, no repression, are its objects and its purposes with and for them, is an enormous task, and one which a trade union single-handed and alone cannot be expected to accomplish by indirection in a few years, with the flood of new ignorance that has been brought in by the high tide of immigration into the stock yards.

In every trade union, however conservative, there are members who will occasionally get the floor and advise their hearers to vote high wages and shorter hours at the ballot box. As the groups of Slovaks gather around after the business is over to have these things explained to them, many get their first real idea of what the ballot and election day mean, and the relation of these to the Government itself. In their own home countries the two essential, if not only, elements of the peasant and agricultural laborer's mind is to believe and obey, or follow. Advantage is taken of this fact here by clan politicians, as well as the clan leader in every department. Once the leader can make these people believe in him, he thinks for the entire group, and insists that their duty consists in following his lead implicitly. Necessarily, the trade union, in order to get them to break away from the leader that opposed the union on industrial lines, would be compelled to urge them to consider their own personal and group interests as wage-workers; to think and act for themselves along lines where they knew the real conditions better than any one else, and certainly better than their leader in a child insurance society, or something else as remote. Here, too, are the first

NOV 1905

germs of what may be called the departmental thinking implanted in their minds—that is, that while a leader may be worthy of their confidence in one thing, it does not necessarily follow that he is so in some other class of interests.

It is doubtful if any organization other than a trade union could accomplish these things, for only the bread and butter necessity would be potent enough as an influence to bring these people out of the fixed forms and crystallizations of life into which they have been compressed. Certain it is that no other organization is attempting to do this work, at least not by amalgamation, which is the only way assimilation can be secured among these various foreign elements. The drawing of these people away from their petty clique leaders and getting them to think for themselves upon one line of topics, namely, the industrial conditions and the importance of trade organization, result in a mental uplift. The only way they can pull a Slovak away from his leader is to pull him up until he is gotten above his leader along the lines of thought they are working on. The very essence of the trade argument on the immigrant is—unconsciously again—an uplifting and an Americanizing influence. The unionist begins to talk better wages, better working conditions, better opportunities, better homes, better clothes. Now, one cannot eternally argue “better” in the ears of any man, no matter how restricted the particular “better” harped on, without producing something of a psychological atmosphere of “better” in all his thought and life activities. If better food, better wages, or even better beer, is the only kind of “better” one might get a Slovak or a Lithuanian to think about, then the only way to improve him is to inject the thought of “better” into the only crevice to be found in his stupidity.

Of course, many object to attempts to improve these people because the immigrants from Lithuania, Slavonia,

and Russian Poland are better off here than they ever were or could be in their own countries; that, left to themselves, they would not only be perfectly satisfied, but delighted with their improved condition; that the union must first produce discontent and dissatisfaction with what would otherwise be entirely satisfactory before it can get these immigrants even to talk about joining the union. Again, it is urged that at home these people do not expect to eat as good food as other people, nor to dress as well, nor to live in as good houses; that, as peasants, they never compare themselves with other people or classes of people.

In opposition to all these things, the union begins by teaching the immigrant that his wages are not so good as another man's, doing practically the same kind of work, while it neglects to tell him he is not doing it so well, so intelligently, nor so much of it perhaps; but the union gets him to compare himself not with what he was in Lithuania, but with some German or Irish family, and then “stings him with the assertion that he has as much right to live that way as anybody.” The union attempts to show the immigrant that he can live better only by getting more money, and that by joining the union he will get it. If left alone he would be entirely satisfied, perhaps, with what he was getting before. It is perfectly true, probably, that in most cases the union does not care for the Lithuanian in the first instance, the real purpose being to protect their own wages by getting the immigrants to demand high wages for their labor. So later on some degree of fellowship is engendered, but self-defense is the real motive.

The union point of view is that for a Lithuanian peasant to be contented, satisfied, and happy with the Lithuanian standard of living in America is a crime, a crime not only against himself but against America and every one who wishes to make individual and social development possible in America; and that whatever the union's motives

NOV 1905

for creating discontent, the fact that it does create a discontent among the immigrants—which is the first step toward their improvement and ultimate Americanization—renders the union so far a public benefactor.

Many persons were interviewed in securing information along these lines—bankers, professional men, and all classes. One gentleman, in the banking business in the stock-yards district for many years, stated that the Slavonians and Galicians have been buying homes within the last eighteen months to a most remarkable and unprecedented extent, and that this is in a measure true of the Lithuanians, but not to such a marked degree. He testifies that the union has given these people a sense of security in their positions. By mixing up the nationalities in the union meeting it has made them acquainted with each other and dispelled an undefined dread of pending race war or struggle between nationalities in the yards. Formerly most of the Slovak and Lithuanian immigrants were a floater class. About the only ones who return to their homes now are the Galicians, in whose country a more or less representative form of government prevails. Others testified in a similar way, although some thought the union had done little except to agitate for higher, higher, and higher wages, regardless of economic conditions.

On the police side of the problem, a sergeant of the twentieth precinct, that known as "back of the yards," which is crowded with the Bohemian and Polish elements, stated that there had been the greatest improvement since the union was formed, in 1900—less disorder, better living, more intelligence, and more understanding of American institutions and laws; that they employ fewer policemen in the district, and that less crime is committed than prior to 1900.

The studies of the various nationalities involved in the present meat strike brings out some valuable points relative to the restriction of immigration.

Among them there seems to be an unalterable opposition to laws excluding those who cannot read and write in their own language, and their argument is that the peasant population of central and eastern Europe, from which they came, have more rugged morals, simpler lives, and fewer vices than the inhabitants of the cities and towns who can read and write, as a rule. They consider themselves not responsible morally or politically for the fact that Russia has fewer schools than Illinois and spends less money on education in a year than does that state. They claim that their ignorance is not of the kind that is synonymous with vice or with crime; that they are as innocent as ignorant, whereas a far worse town and city population would be admitted without question under such laws. They have some peculiar ideas about prohibiting absolutely any immigration for a specific term of years and then allowing only a certain percentage to come in each year thereafter; but the main point they make is as to the illiteracy of the peasant class, the most desirable we can secure, and the literacy of the criminal classes of the great cities, which could come in under such restrictive legislation. Such things are only a part of this study brought out by your two letters, and the study has seemed to me so interesting and, in a way, so novel, that I have taken courage to give you the results quite in extenso.

I am, with the highest regards, very respectfully,

CARROLL D. WRIGHT,
Commissioner.

CARICATURE CAMERA

In the line of optics one of the most curious of recent inventions is what might be called a "caricature camera," which is arranged in such a way that the film on which the picture is taken, instead of being flat, is curved. Thus, when a portrait is made, the likeness of a person undergoes a distortion, like that which affects the image of an individual who gazes into a curved mirror.

CLASSIFIED DIRECTORY OF LOCAL UNIONS.

Alabama	Idaho	Fort Scott152	Meridian391	Olean214
Birmingham.....136	Boise City.....291	Larwence.....235	Yazoo City.....188	Oneonta.....436
Birmingham.....227	Indiana	Parsons.....337	Missouri	Oswego.....328
Mobile.....334	Anderson.....147	Topeka.....225	Fulton.....365	Plattsburgh.....417
Mobile.....345	Brazil.....324	Wichita.....144	Hannibal.....350	Portchester.....402
Montgomery.....363	Elkhart.....157	Winfield.....175	Jefferson City.....375	Poughkeepsie.....296
New Decatur.....325	Evansville.....16	Kentucky	Joplin.....95	Rochester.....44
Sheffield.....378	Fort Wayne.....138	Henderson.....82	Kansas City.....18	Rochester.....86
Arizona	Fort Wayne.....305	Lexington.....183	Kansas City.....124	Rochester.....284
Douglas.....434	Hammond.....280	Louisville.....369	Kansas City.....330	Saratoga.....261
Arkansas	Indianapolis.....10	Owensboro.....216	St. Joseph.....40	Schenectady.....85
Fort Smith.....346	Kokomo.....322	Paducah.....177	St. Louis.....1	Schenectady.....110
Hot Springs.....215	Lafayette.....222	Louisiana	St. Louis.....2	Schenectady.....140
Little Rock.....126	Loganport.....209	Baton Rouge.....315	St. Louis.....59	Schenectady.....232
Pine Bluff.....251	Marion.....153	New Iberia.....386	Sedalia.....266	Schenectady.....234
Texarkana.....301	New Albany.....286	New Orleans.....4	Springfield.....335	Schenectady.....247
California	Peru.....347	New Orleans.....130	Montana	Schenectady.....252
Bakersfield.....428	Princeton.....269	New Orleans.....281	Anaconda.....200	Schenectady.....254
Eureka.....154	Shelbyville.....329	Shreveport.....194	Anaconda.....373	Schenectady.....267
Fresno.....169	South Bend.....132	Shreveport.....397	Bozeman.....416	Schenectady.....442
Los Angeles.....61	Sullivan.....219	Maine	Butte.....65	Syracuse.....43
Los Angeles.....116	Terre Haute.....25	Millinocket.....471	Great Falls.....122	Troy.....392
Los Angeles.....370	Viennese.....243	Portland.....399	Helena.....185	Utica.....42
Oakland.....283	Washington.....371	Waterville.....294	Missoula.....408	Utica.....181
Pasadena.....418	Indian Territory	Maryland	Mexico	Watertown.....421
Sacramento.....36	Ardmore.....406	Annapolis.....448	Monclova Coa.....51	North Carolina
Sacramento.....340	Chickasha.....460	Baltimore.....27	La Cananea.....182	Asheville.....238
Santa Barbara.....451	Muskogee.....384	Baltimore.....28	Nebraska	Charlotte.....297
San Francisco.....6	S. McAllister.....220	Baltimore.....46	Hastings.....206	Greensboro.....295
San Francisco.....151	Illinois	Cumberland.....307	Lincoln.....265	Raleigh.....380
San Francisco.....404	Alton.....128	Frederick.....431	Omaha.....162	Salisbury.....438
San Jose.....250	Aurora.....149	Hagerstown.....255	South Omaha.....260	Wilmington.....123
Santa Cruz.....289	Belleville.....50	Massachusetts	Nevada	Winston-Salem.....424
San Diego.....465	Bloomington.....197	Boston.....30	Goldfield.....450	North Dakota
Stockton.....207	Belvidere.....466	Boston.....103	Reno.....401	Fargo.....285
Vallejo.....180	Carlisle.....444	Boston.....104	Tonopah.....361	Ohio
Colorado	Champaign.....203	Boston.....396	New Hampshire	Akron.....11
Colo. Springs.....233	Chicago.....9	Brockton.....423	Berlin.....383	Alliance.....439
Cripple Creek.....70	Chicago.....49	Fall River.....437	Manchester.....229	Ashtabula.....143
Denver.....68	Chicago.....134	Fitchburg.....410	Portsmouth.....426	Canton.....178
Denver.....121	Chicago.....282	Haverhill.....470	New Jersey	Chillicothe.....248
Pueblo.....12	Chicago.....376	Lawrence.....385	Atlantic City.....210	Cincinnati.....101
Connecticut	Chicago.....381	Lowell.....461	Atlantic City.....211	Cincinnati.....212
Bridgeport.....146	Danville.....290	Lynn.....377	Camden.....299	Cleveland.....38
Danbury.....195	Decatur.....242	North Adams.....293	Hackensack.....422	Cleveland.....39
Hartford.....37	East St. Louis.....309	New Bedford.....224	Jersey City.....15	Cleveland.....464
Hartford.....186	Elgin.....117	Pittsfield.....167	Jersey City.....164	Cleveland.....468
Meriden.....351	Frederick.....387	Pittsfield.....264	Long Branch.....331	Columbus.....54
New Haven.....90	Galesburg.....184	Quincy.....189	Newark.....52	Columbus.....446
Norwich.....343	Granite City.....367	Salem.....259	Newark.....87	Dayton.....118
Norwalk.....472	Joliet.....176	Springfield.....7	Newark.....190	Dayton.....241
Stamford.....310	Kankakee.....362	Worcester.....96	Paterson.....102	East Liverpool.....93
Delaware	Kewanee.....94	Michigan	Perth Amboy.....358	Findlay.....298
Wilmington.....313	La Salle.....321	Ann Arbor.....171	Plainfield.....262	Fremont.....433
District of Columbia	Lincoln.....303	Battle Creek.....445	Trenton.....29	Lima.....32
Washington.....26	Peoria.....34	Bay City.....150	New Mexico	Lorain.....237
Washington.....148	Peoria.....302	Cadillac.....455	Albuquerque.....306	Massillon.....35
Florida	Quincy.....67	Detroit.....17	New York	Mt. Vernon.....97
Jacksonville.....100	Rockford.....196	Detroit.....133	Albany.....137	Newark.....172
Key West.....443	Rock Island.....278	Detroit.....393	Auburn.....300	Norwalk.....414
Miami.....349	Springfield.....193	Escanaba.....374	Auburn.....394	Springfield.....204
Pensacola.....452	Springfield.....427	Grand Rapids.....75	Binghamton.....325	Steubenville.....246
Tampa.....108	Streator.....236	Grand Rapids.....231	Buffalo.....41	Toledo.....8
Tampa.....199	Waukegan.....158	Houghton.....405	Buffalo.....45	Toledo.....245
Georgia	Iowa	Iron Mount'n.....359	Cortland.....459	Warren.....411
Atlanta.....84	Boone.....372	Jackson.....205	Elmira.....139	Youngstown.....62
Atlanta.....78	Cedar Rapids.....226	Lansing.....352	Glenns Falls.....389	Youngstown.....64
Atlanta.....441	Cedar Rapids.....253	Marquette.....407	Hornellsville.....92	Zanesville.....160
Augusta.....449	Clinton.....273	Muskegon.....275	Ithaca.....409	Oklahoma
Columbus.....429	Davenport.....109	Saginaw.....145	Jamestown.....106	Guthrie.....364
Macon.....454	Des Moines.....55	Sault Ste Marie.....332	Kingston.....277	Oklahoma.....456
Rome.....312	Dubuque.....198	Traverse City.....131	New Rochelle.....127	Oklahoma.....155
Savannah.....88	Keokuk.....420	Minnesota	New York.....3	Shawnee.....48
Hawaii	Mason City.....170	Duluth.....31	New York.....20	Oregon
Honolulu.....111	Muscatine.....208	Mankato.....412	New York.....270	Portland.....125
Idaho	Oskaloosa.....336	Minneapolis.....24	New York.....368	Portland.....317
Boise City.....291	Ottumwa.....173	Minneapolis.....292	Niagara Falls.....58	Pennsylvania
Indiana	Sioux City.....47	St. Cloud.....398	Mississippi	Allentown.....366
Anderson.....147	Waterloo.....288	Winona.....74	Jackson.....257	Altanta.....271
Brazil.....324	Kansas	Missouri	Montana	Altanta.....457
Elkhart.....157	Atchison.....19	Fort Scott.....152	Anaconda.....200	Bloomsburg.....107
Evansville.....16	Emporia.....333	Larwence.....235	Anaconda.....373	Connellsville.....326
Fort Wayne.....138		Parsons.....337	Bozeman.....416	Easton.....91
Fort Wayne.....305		Topeka.....225	Butte.....65	
Hammond.....280		Wichita.....144	Great Falls.....122	
Indianapolis.....10		Winfield.....175	Helena.....185	
Kokomo.....322		Kentucky	Missoula.....408	
Lafayette.....222		Henderson.....82		
Loganport.....209		Lexington.....183		
Marion.....153		Louisville.....369		
New Albany.....286		Owensboro.....216		
Peru.....347		Paducah.....177		
Princeton.....269		Louisiana		
Shelbyville.....329		Baton Rouge.....315		
South Bend.....132		New Iberia.....386		
Sullivan.....219		New Orleans.....4		
Terre Haute.....25		New Orleans.....130		
Viennese.....243		New Orleans.....281		
Washington.....371		Shreveport.....194		
Indian Territory		Shreveport.....397		
Ardmore.....406		Maine		
Chickasha.....460		Millinocket.....471		
Muskogee.....384		Portland.....399		
S. McAllister.....220		Waterville.....294		
Illinois		Maryland		
Alton.....128		Annapolis.....448		
Aurora.....149		Baltimore.....27		
Belleville.....50		Baltimore.....28		
Bloomington.....197		Baltimore.....46		
Belvidere.....466		Cumberland.....307		
Carlisle.....444		Frederick.....431		
Champaign.....203		Hagerstown.....255		
Chicago.....9		Massachusetts		
Chicago.....49		Boston.....30		
Chicago.....134		Boston.....103		
Chicago.....282		Boston.....104		
Chicago.....376		Boston.....396		
Chicago.....381		Brockton.....423		
Danville.....290		Fall River.....437		
Decatur.....242		Fitchburg.....410		
East St. Louis.....309		Haverhill.....470		
Elgin.....117		Lawrence.....385		
Frederick.....387		Lowell.....461		
Galesburg.....184		Lynn.....377		
Granite City.....367		North Adams.....293		
Joliet.....176		New Bedford.....224		
Kankakee.....362		Pittsfield.....167		
Kewanee.....94		Pittsfield.....264		
La Salle.....321		Quincy.....189		
Lincoln.....303		Salem.....259		
Peoria.....34		Springfield.....7		
Peoria.....302		Worcester.....96		
Quincy.....67		Michigan		
Rockford.....196		Ann Arbor.....171		
Rock Island.....278		Battle Creek.....445		
Springfield.....193		Bay City.....150		
Springfield.....427		Cadillac.....455		
Streator.....236		Detroit.....17		
Waukegan.....158		Detroit.....133		
Iowa		Detroit.....393		
Boone.....372		Escanaba.....374		
Cedar Rapids.....226		Grand Rapids.....75		
Cedar Rapids.....253		Grand Rapids.....231		
Clinton.....273		Houghton.....405		
Davenport.....109		Iron Mount'n.....359		
Des Moines.....55		Jackson.....205		
Dubuque.....198		Lansing.....352		
Keokuk.....420		Marquette.....407		
Mason City.....170		Muskegon.....275		
Muscatine.....208		Saginaw.....145		
Oskaloosa.....336		Sault Ste Marie.....332		
Ottumwa.....173		Traverse City.....131		
Sioux City.....47		Minnesota		
Waterloo.....288		Duluth.....31		
Kansas		Mankato.....412		
Atchison.....19		Minneapolis.....24		
Emporia.....333		Minneapolis.....292		
		St. Cloud.....398		
		St. Paul.....23		
		Winona.....74		
		Mississippi		
		Jackson.....257		

CLASSIFIED DIRECTORY OF LOCAL UNIONS—Continued.

East Mauch	Rhode Island	Houston..... 66	Seattle..... 202	CANADA
Chunk..... 244	Providence..... 99	Palestine..... 388	Seattle..... 217	Alberta
Erie..... 56	Providence..... 258	Paris..... 320	Spokane..... 73	Calgary..... 348
Greensburg..... 379	Newport..... 268	San Antonio..... 60	Tacoma..... 76	British Columbia
Harrisburg..... 53	South Carolina	Sherman..... 272	West Virginia	Vancouver..... 213
Hazleton..... 327	Charleston..... 179	Tyler..... 314	Bluefield..... 119	Victoria..... 230
Lancaster..... 71	Columbia..... 382	Waco..... 72	Charleston..... 256	Manitoba
Meadville..... 403	Georgetown..... 89	Utah	Parkersburg..... 168	Winnipeg..... 166
New Brighton..... 342	Sumter..... 453	Ogden..... 316	Wheeling..... 141	Winnipeg..... 435
New Castle..... 33	South Dakota	Salt Lake City..... 57	Wheeling..... 142	Nova Scotia
Oil City..... 228	Sioux Falls..... 360	Salt Lake City..... 354	Wisconsin	Sydney..... 344
Philadelphia..... 21	Tennessee	Vermont	Appleton..... 201	New Brunswick
Philadelphia..... 98	Chattanooga..... 467	Barre..... 400	Beloit..... 311	St. John..... 174
Philadelphia..... 240	Knoxville..... 318	Burlington..... 390	Eau Claire..... 432	Ontario
Philadelphia..... 287	Memphis..... 192	Rutland..... 447	Grand Rapids..... 440	Ft. William..... 339
Pittsburg..... 5	Nashville..... 129	St. Albans..... 395	La Crosse..... 135	Hamilton..... 105
Pittsburg..... 14	Texas	Virginia	Madison..... 159	London..... 120
Pittsburg..... 319	Austin..... 115	Lynchburg..... 113	Marinette..... 274	St. Catharines..... 249
Pittsburg..... 355	Beaumont..... 221	Newport News..... 165	Milwaukee..... 83	Toronto..... 114
Pittston..... 357	Beaumont..... 308	Norfolk..... 80	Oshkosh..... 187	Toronto..... 353
Scranton..... 81	Dallas..... 69	Roanoke..... 425	Racine..... 430	
Shamokin..... 263	Denison..... 338	Washington	Wausau..... 341	
Sharon..... 218	El Paso..... 13	Aberdeen..... 458	West Superior..... 276	Quebec
Uniontown..... 161	Fort Worth..... 156	Everett..... 191	Wyoming	Montreal..... 463
Warren..... 63	Greenville..... 304	Seattle..... 77	Cheyenne..... 415	
Wilkesbarre..... 163				
Williamsport..... 239				
York..... 469				
Philippine Islands				
Manila..... 413				

J. J. EGAN'S "ACME" COMMUTATOR COMPOUND



ACME—A COMMUTATOR NECESSITY
Prevents sparking or heating.
Increases the efficiency of a Dynamo or Motor.
Keeps the Commutator always bright and well lubricated.
Absolutely will not gum the brushes.
Samples furnished on request.

J. J. EGAN, 317 Austin Avenue, Chicago

White Switches

Tablet Boards
Switch Boards

H. P. WHITE & CO., LTD.

PHILADELPHIA, PA.

BE PREPARED FOR ANY EMERGENCY

BY HAVING A

..Bell Telephone..

In Your Residence.

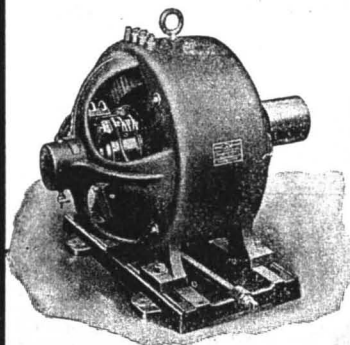
Empire State (Bell) Telephone and Telegraph Company.

The Central New York (Bell) Telephone and Telegraph Company.

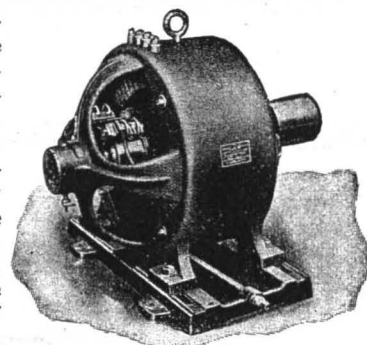
New York and Pennsylvania (Bell) Telephone and Telegraph Company

NOV 1905

How One Thing Leads To Another

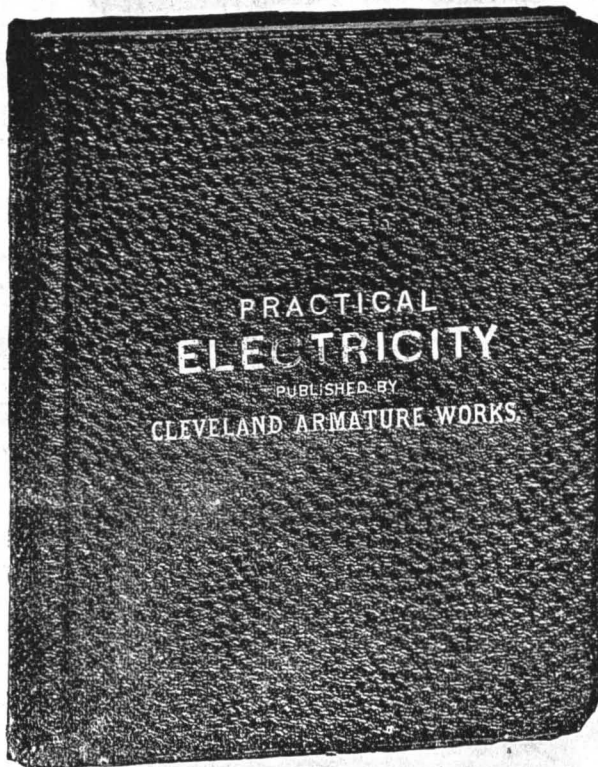


From our paper, THE ARMATURE WINDER, issued for the purpose of advertising our facilities for repairing electrical machinery, originated our book. PRACTICAL ELECTRICITY, which has proven to be the most popular book devoted to the study of electricity; 15,000 copies have found buyers, and the Fourth Edition is now ready. From PRACTICAL ELECTRICITY has sprung the manufacture of Dynamos and Motors.



By buying a copy of this book and becoming familiar with the art of electricity you don't know what it may lead up to.

There are XX chapters or subjects carrying you from the fundamental principles of electricity on through the various branches to a point where the careful student comprehends the complete designing, care and operation of a dynamo or a motor. Each subject is carefully written and to the point. After a student studies a subject, he is questioner on that subject in such a manner as to bring clearly to his mind the points he needs to know regarding same. A DICTIONARY in back of book will enable him to learn the meaning of any electrical word, term or phrase used in this book as well as hundreds of others in common use. All required tables necessary in the study are in it.



YOU CAN DO IT

While studying electricity from our book and perfecting yourself in electrical engineering—you can be engaged in the sale of our dynamos and motors and earning a good commission.

Write for our catalogue and proposition in reference to how to sell, and commission we pay.

Our proposition is an ideal one for any man who is connected with a power plant or central station; the people to whom you furnish power will, in most cases, favor you if you but tell them you are agent for a good machine.

Price \$2.00 per copy

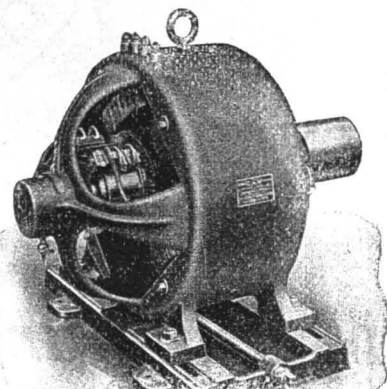
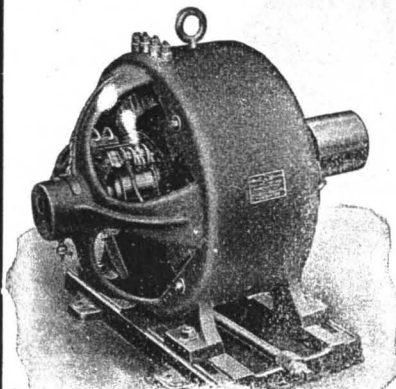
Money refunded if not satisfactory upon examination.

Our Repair Department

We operate the largest repair works in the United States, making a specialty of rewinding all types of armatures, new and refilled communicators and fields. We want your patronage.

Cleveland Armature Works

15 Coe St., Cleveland, Ohio



NOV 1905

"YANKEE" TOOLS

Are the newest, cleverest and most satisfactory in use, and the first to be offered at so reasonable a price that every up-to-date mechanic could buy tools of their quality and character.

Other tools are very good tools, but "Yankee" Tools are better.

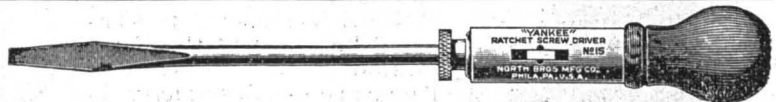
"Yankee" Tools are sold by all leading dealers in tools and hardware everywhere.

ASK YOUR DEALER TO SEE THEM



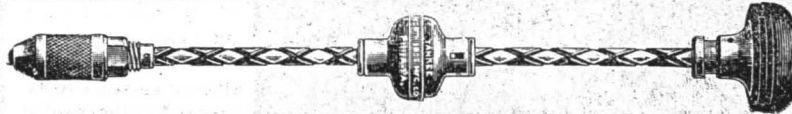
"Yankee"
Ratchet Screw Driver.

"Yankee"
Ratchet Screw Driver with
finger turn on blade.



"Yankee"
Spiral Ratchet Screw
Driver.

"Yankee"
Automatic Drill with
Magazine for Drill
Points

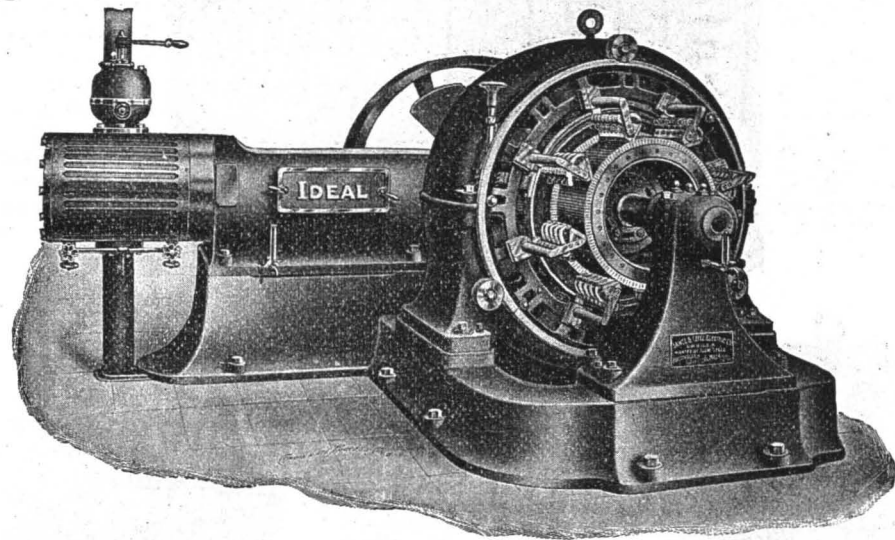


"Yankee"
Reciprocating Drill for
Wood or Metal.

Our "Yankee" Tool Book tells all about these and some others, and is mailed free on application to

North Brothers Mfg. Co. Lehigh Ave. and American Street
PHILADELPHIA, PENNA.

Jantz & Leist Electric Co.



MANUFACTURERS OF

Multipolar Motors and Dynamos

808 and 810 Elm Street, Cincinnati, O., U. S. A.

NOV 1905

American ELECTRIC LAMP COMPANY

MANUFACTURERS OF
HIGH GRADE

Incandescent Lamps

General Offices: 26 Cortlandt St., N. Y. Factory: York, Pa.

Seattle Office: 813 Second Ave. . . WRITE FOR PRICES. . . Philadelphia Office: 809 Girard Trust Bldg.



Drawn Steel versus *Cast Iron*

The above illustrations show a cast iron and a drawn steel outlet box from which a plug has been knocked. The cast iron box is broken through the middle. The edges of the conduit hole are jagged, which, had the box remained intact, would have necessitated filing and reaming. On the other hand, the drawn steel box is in perfect condition. The plug was removed with one sharp blow of a hammer, the clean round hole resulting—no filing or reaming required. There's the difference between cast iron and drawn steel. Drawn steel boxes save money and time. They insure perfect insulation and protect wires from all mechanical injury. We are the sole manufacturers. Write for our bulletin.

**BOSSERT ELECTRIC
CONSTRUCTION COMPANY**
UTICA, N. Y.

THE Philadelphia Electric Co.

10th and Sansom Streets, Philadelphia

Supplies Current for
Electric Light
Electric Power
Electric Signs
Everything Electrical
IN PHILADELPHIA

Buy the Standard Lamp of the World,

"THE EDISON"

Sole Agents for Philadelphia District

**The Edison Electric Light
Company of Philadelphia**

Graphite and Bronze Bushings

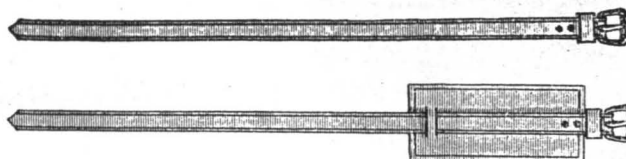
Are Bearings for Machinery THAT REQUIRE NO OILING OR GREASING

ARE MADE ONLY BY

THE GRAPHITE LUBRICATING CO.,

Bound Brook, N. J.

"PERFECTION" Stamped on your



**Belts,
Safety Straps and
Climber Straps**

Guarantees Quality. Take No Other.

Manufactured by OTTO BUNGE,

1130 St. Peter Street, Indianapolis, Ind.

ALPHADUCT

Is recognized all

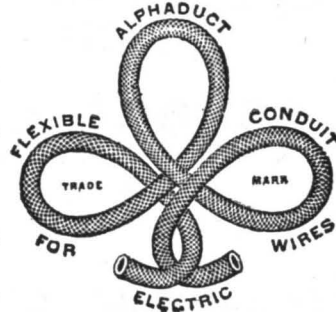
along the line as

the most perfect

CONDUIT

Order by name &

Give It a Trial.



OFFICIALLY APPROVED

Alphaduct Manufacturing Company
522 West Twenty-second St. NEW YORK

**50c. Saved Daily Gives
\$6,472 in 20 Years**

**First Mortgage 6 per cent
Telephone Bonds**

safest investment in the world. \$10 enough
to start. Send postal for full information.

G. H. RAYMOND & Co.,

332 Ellicott St., Buffalo, N. Y.

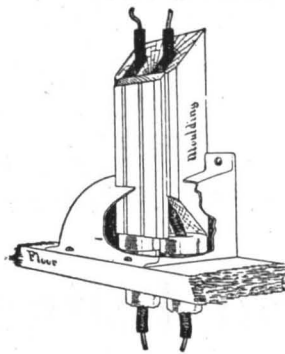
**\$4000
A Year**

Is the income gained by Mr. W. W. Scott, 56 Boylston St., Cambridge, Mass., through means of an I. C. S. Electrical Course. When he started he was 26 years old, and earned \$9.00 a week. There are thousands of others who also date the beginning of their success to the day they wrote asking how the I. C. S. could help them.

We can help YOU to gain a better position and increase your earnings. For 14 years we have been doing this for thousands of others. Isn't it worth your while to ask how we can thus help you? It puts you under no obligation whatever to do so; simply write us—DO IT NOW.

**INTERNATIONAL
CORRESPONDENCE SCHOOLS**

Box 1029, SCRANTON, PA.



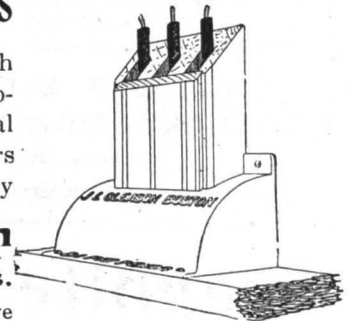
Gleason's Moulding Boxes

are designed for use in connection with electrical moulding work, and are approved by underwriters and municipal authorities. For sale by leading dealers in all principal cities. Manufactured by

John L. Gleason

290 South St. Jamaica Plain, Mass.

Send postal for illustrated and descriptive pamphlet and price list.

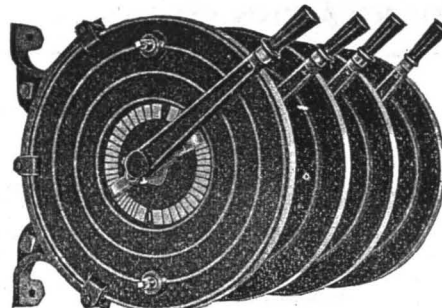


WIRT THEATER DIMMERS.

Interlocking

Non-Interlocking

Two or Three Wire



Reliable

Convenient

Large Variation

FIG 12.

THE WIRT ELECTRIC COMPANY, INC.

PHILADELPHIA.

CAUTION.

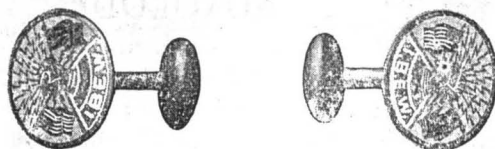
We announce for the protection of our customers that all small tools, climbers, etc., of our manufacture are stamped with our firm name thus: **M. KLEIN & SONS.**

There are tools on the market stamped "Klein's Pattern," and a number of climbers have been sent to us in a defective condition which we have been asked to replace. Evidently the owners were under the impression that they were made by us.

Purchasers wanting genuine Klein goods are cautioned to see that the full name **M. KLEIN & SONS** is stamped on them. None other are genuine.

Mathias Klein & Sons

A New Departure!



WEAR THE I. B. E. W.

Cuff Buttons

SOLID GOLD (PER PAIR), \$2.00.

ROLLED GOLD (PER PAIR), \$1.50

Send in your order now, while the supply lasts. All orders must be accompanied by the necessary amount of cash.

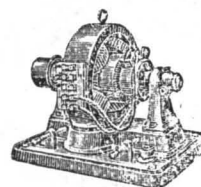
ADDRESS:

PETER W. COLLINS,

GRAND SECRETARY,

509-10-11 Corcoran Bldg. Washington, D. C.

ELECTRICAL MACHINERY
AND
TELEPHONE APPARATUS

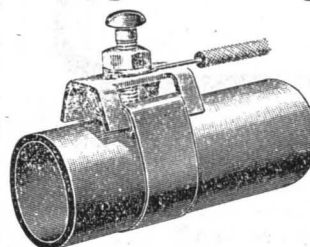


The Holtzer-Cabot Electric Co.,
Boston, (Brookline) Mass.

New York

Chicago

Telephone Specialties



If you want a really good ground clamp — one that lasts, and makes a good connection — always try this. Adopted by nearly every Bell Company in the United States.

Write for list of other specialties.

(Pat'd)

NEW YORK GROUND CLAMP, For connecting telephone ground wires to pipes and cables.

Yonkers Specialty Co., Yonkers, N. Y.

Western Electric Co., Agents.

1 9 0 0

DRY BATTERY



Mechanically Perfect

FOR

TELEPHONE, BELL,

and all open circuit work.

Specify this Battery and avoid trouble.

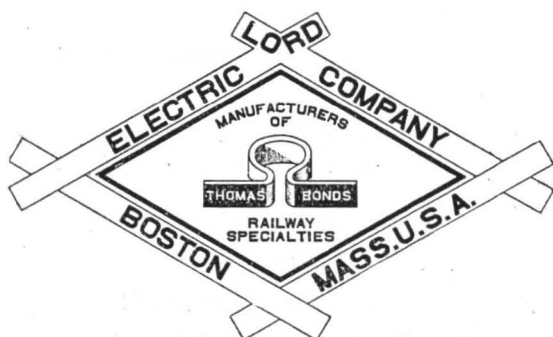
**THE NUNGESSER
ELECTRIC BATTERY CO.**

CLEVELAND.

General Sales Office,

128 West Jackson Blvd., Chicago

RAIL BONDS



LIGHTNING ARRESTERS

LINEMEN'S CLIMBERS *BEST IN THE WORLD*

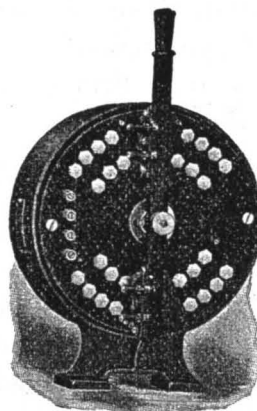
Manufactured by **Wilmot Stephens**
OFFICE AND FACTORY, 16 MITCHELL AVE.
BINGHAMTON, N. Y.

Old Maid—"Who are you?"
Strange Man—"I'm Jack the hugger."
Old Maid—"What are your office hours?"

CONTROLLERS

TYPE-U

SMALL
COMPACT
DURABLE



May be
MOUNTED
OVERHEAD
UPRIGHT
or on
PEDESTAL

Bulletin on Application.

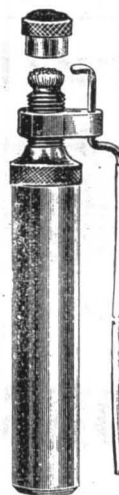
Electric Controller & Supply Co.

Main Office and Works, CLEVELAND, O.

136 Liberty St., New York; 515 Frick Building, Pittsburg, Pa.; 1621-29 17th St., Denver, Col.; 509-10 Woodward Building, Birmingham, Ala.; 209 Fremont St., San Francisco, Cal.; 47 Victoria St., London, Eng.

Standard Screw Glass Insulators
With Patent Drip Petticoats
For Every Purpose
any Test Shows They're Best
THE HEMINGRAY GLASS CO.
Office: Covington, Ky.
Established 1848 Factory: Muncie, Ind

GIVEN AWAY
WITH
NOKORODE



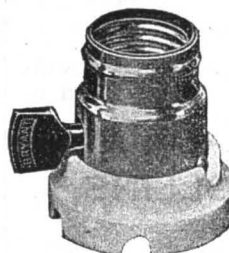
Any one returning to us, prepaid, before July 1, 1906, 50 covers from our 2 oz. Enameled boxes of Nokorode will receive, free of cost, this "Little Beauty" Pocket Blow Torch.

Free sample of our paste on application.

M. W. Dunton & Co.
Providence, R. I.

THE BRYANT ELECTRIC CO.

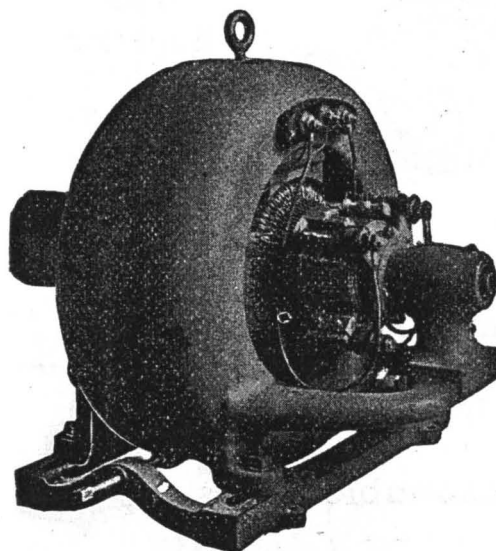
Manufacturers of



Electrical Supplies

Bridgeport, Conn. Chicago, Ill.

NOV 1905



FEDERAL

Type B Motors

are the noiseless, sparkless, efficient kind. They deliver their full rated horse-power at slow speed, necessitating a solid, massive construction, compactly built. They will stand up under the severest service, and are unequalled for general power purposes.

We make another type especially for elevator service, using with it our automatic controller. This combination cannot be excelled.

Federal Electric Company

NORTH GIRARD, PA.

120,000 Telephones

IN AND AROUND

CHICAGO, 5c per day and up

Chicago Telephone Company

203 Washington Street

Chicago, Ill.

**"DIAMOND H"
SWITCHES**



Hart Mfg. Co., Hartford, Conn.

BRANCH OFFICES

New York, - - - 203 Broadway
Boston, - - - - 170 Summer St.
Chicago, - - - - 167 So. Canal St.
Toronto, Ont, 52 Adelaide St. W.
London, Eng., - - 25 Victoria St

CROUSE-HINDS COMPANY

SYRACUSE, N. Y.

MANUFACTURERS OF

Knife Switches

Switch Boards

Panel Boards

Norbitt Porcelain Specialties

Harpoon Guy Anchors

Incandescent and Arc Head Lights.

NOV 1905

Flexduct



The
Superior
Conduit for
Interior
Wiring.

Osburn Flexible Conduit Co.

GENERAL SALES OFFICES:

21 Park Row, New York City, U. S. A.



The Sign that Stands for What the People Want

Good Service Reasonable Rates



Central Union Telephone Company

General Offices—Indianapolis, Ind.

OPERATING OVER 175,000 TELEPHONES IN OHIO, INDIANA AND ILLINOIS, and
by Means of its Efficient System of "Long Distance" Lines Connecting Directly with
Over 350,000 Subscribers in the Three States.

DONNELLY CLIMBERS

Ask your dealer for the Donnelly.
or will get them for you.

He either carries them in stock,
If not send to us direct.

SOLID PLUG PATTERN

Price per pair, Express Prepaid, \$2.00
Price per pair, Express Collect, 1.50
Extra Spurs, 25 Cents per pair, Postpaid.

THREE RIVET PATTERN

Price per pair, Express Prepaid, \$2.00
Price per pair, Express Collect, 1.50
Extra Spurs, 40 Cents Per Pair, including
Rivets.

(Cash in advance.)

Insist on having the Donnelly, and you'll never regret it.
Every Pair Guaranteed.

MANUFACTURED BY

THE BLAKESLEE FORGING CO.
PLANTSVILLE, CONN.

Whether You Prefer Brass or Porcelain
You Can Still Use

P. & S.

ATTACHMENT PLUGS

We Make Both Styles

PASS & SEYMOUR, Inc., SOLVAY, N.Y.

New York

Chicago

San Francisco

NOV 1905

Three Famous Brands of Rubber Boots

Many a lineman owes his life to his rubber boots. With other people rubber boots keep out the wet; with linemen they keep out the wet and the electricity. But a cracked rubber boot is a dangerous thing for a lineman to wear. His rubber boots should be the best. Here are three famous brands of rubber boots

BOSTON x CANDEE x WOONSOCKET

The first are made by the Boston Rubber Shoe Co., Boston; the second by L. Candee & Co., New Haven, Conn.; the third by the Woonsocket Rubber Co., Woonsocket, R. I., all old reliable companies, whose goods have been a standard for 50 years. Look on the bottom of your boots. If one of these three names are there, you've got good boots.

RUBBER COVERED Wires and Cables FOR EVERY SERVICE

For Underground, Aerial and Submarine use
"Safety" wires and cables have the endorsement of some of the largest users in the United States.

The Safety Insulated Wire & Cable Company
114-116 LIBERTY STREET, NEW YORK

THE WISCONSIN TELEPHONE COMPANY

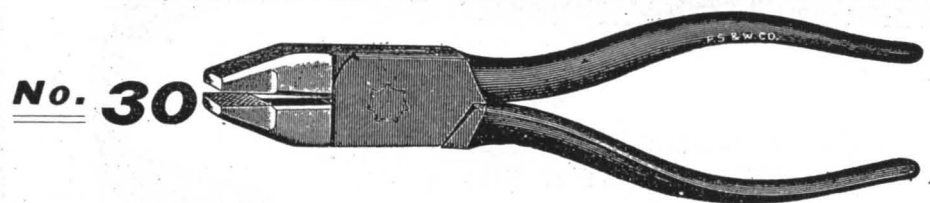
—OPERATES—

Over 50,000 Stations in Wisconsin

and Over 20,000 Miles of Toll Wire in Connection Therewith.

The present exchange rates bar none from the service, and very liberal toll discounts render their toll service the most efficient and economical means of communication.

ELECTRICIANS' AND LINEMEN'S TOOLS



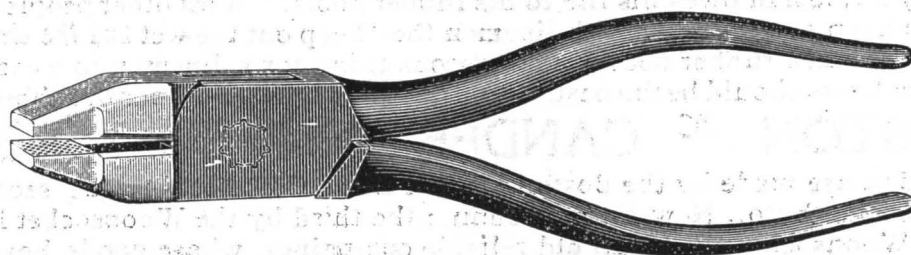
"STAR RIVET" BOX JOINT SIDE CUTTING PLIERS, No. 30

We make a Complete and High-Grade Line of PLIERS and SPLICING CLAMPS, to which we invite the attention of all Electricians and Linemen. Send for one of our *Tool Catalogues* illustrating mechanics' tools made by us.

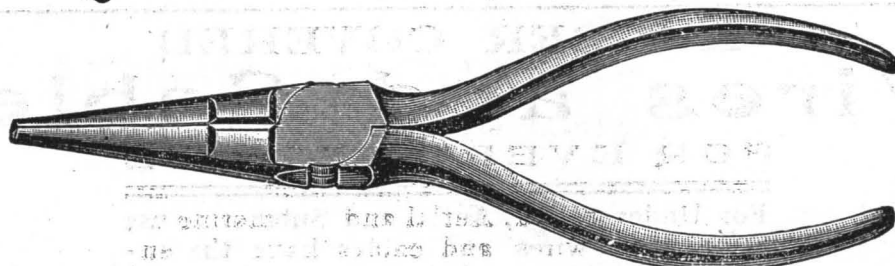
THE PECK, STOW & WILCOX CO., 27 Murray St. N. Y.

NOV 1905

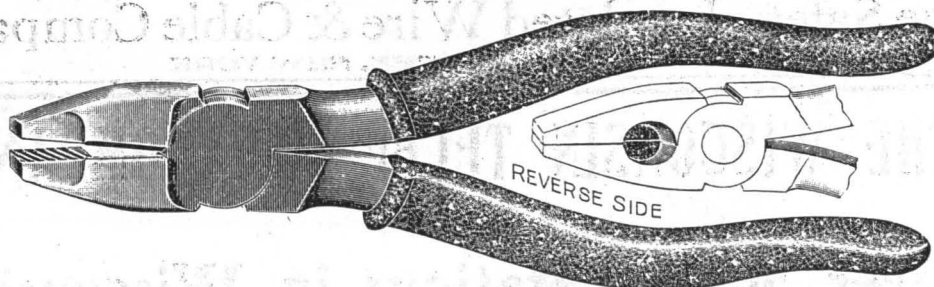
GENUINE CRONK PLIERS



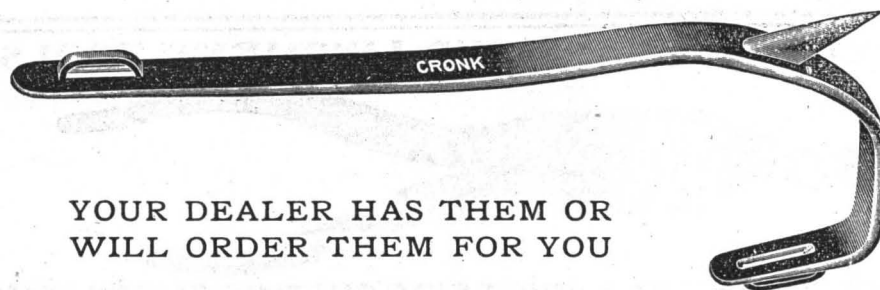
QUALITY UNEXCELLED



ONCE USED—ALWAYS USED



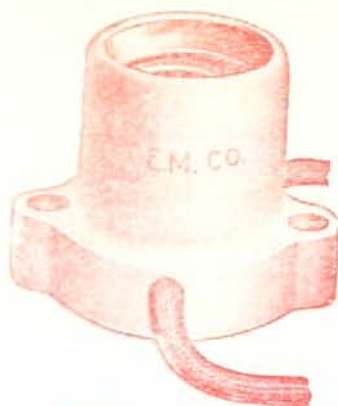
DON'T BUY INFERIOR TOOLS



YOUR DEALER HAS THEM OR
WILL ORDER THEM FOR YOU

THE CRONK & CARRIER MFG CO.

ELMIRA, NEW YORK



Weatherproof Receptacle

This is the most satisfactory receptacle to use in conduit boxes, as there are no binding screws to corrode, short circuit or work loose.

The receptacles are connected to the mains by two stranded wires soldered to the lamp contacts inside the receptacle, similar to our standard weather proof sockets. The screws are supplied with each receptacle.

Bossert Boxes No. 8-N are provided with two threaded holes to which the receptacles are secured by machine screws after the wires have been pulled into the conduits.

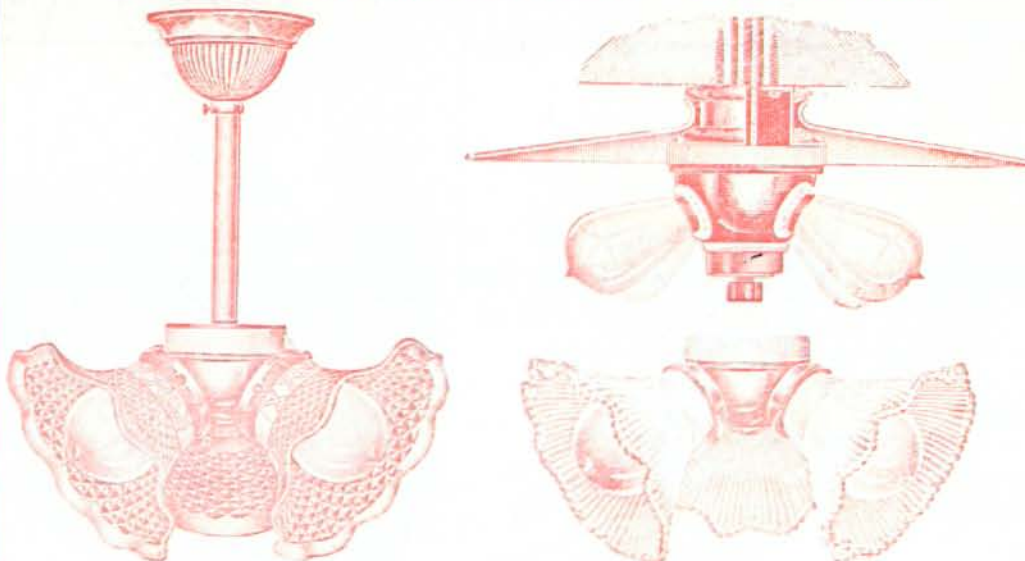
On sign and other out-door work this receptacle will out-last any other, as all openings in the porcelain are sealed, which prevents moisture from entering.

SEND FOR SAMPLE.

The Trumbull Electric Mfg Co.

608 Woodford Ave., - - - Plainville, Conn.

BENJAMIN WIRELESS CLUSTERS



Easily Installed . . NATIONAL CODE STANDARD . . Reliable

WRITE FOR CATALOGUE NO. B-16 - JUST OUT.

BENJAMIN ELECTRIC MFG. CO.

NEW YORK

CHICAGO

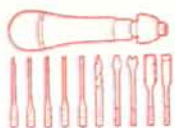
SAN FRANCISCO

Kaercher's
OUR ADS ARE TRUTHFUL

TOOL

During the Month of October we
Will Sell

TOOL HANDLE



Genuine Red Coco-
bolo Wood Handles
containing ten steel
tools. Price

35c

POSTAGE PAID.

Handy Electrical Dictionary

A practical hand book of reference
containing definitions of every used
electrical term or phrase. Indispens-
able to everyone interested in electrica-
science. **Price 35c.** Postage Paid.

PITTSBURG, PA.

THE MICHIGAN State Telephone Co.

A FEW STATISTICS.

This Company operates its own
system through both peninsulas of
the State of Michigan, and connects
with all cities and towns east of the
Rocky Mountains over the Long
Distance system of the American
Telephone & Telegraph Company.

It furnishes service to **80,320**
subscribers located at **312** local
exchanges.

These exchanges, which require
106,973.16 miles of wire for local
service, are connected with each
other by **48,262.5** miles of wire,
nearly all of which is copper.

An average of **17,003** Long Dis-
tance calls pass over the company's
toll line system daily.

Its exchange system throughout
the state is growing at the rate of
1,000 telephones per month net.

The toll line systems on the two peninsulas
are connected by an armored submarine
cable laid under the Straits of Mackinaw.
This cable is the largest of its kind, length
considered, in the world

CROWN WOVEN WIRE BRUSH COMPANY

SALEM, MASSACHUSETTS

Manufacturers of

HIGH-GRADE WOVEN WIRE

DYNAMO BRUSHES OF EVERY DESCRIPTION

LOWELL INSULATED WIRE COMPANY

RUBBER

WIRES



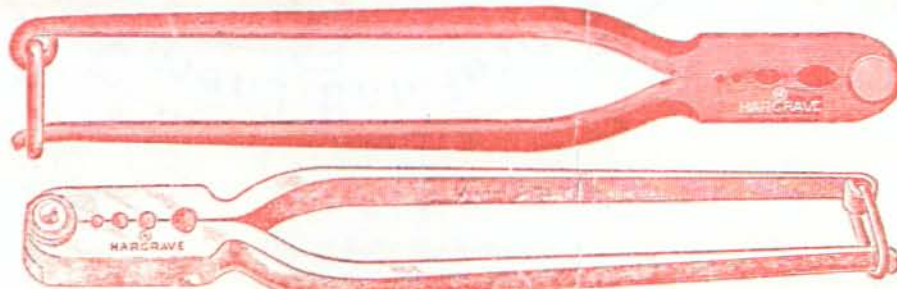
LAMP CORDS

LOWELL, MASS.

BEST

QUALITY
FINISH
DESIGN

**HARGRAVES
TOOLS**



THE CINCINNATI TOOL CO.,
CINCINNATI, OHIO, U. S. A.

Write for Catalogue No. 411

1905 November Index

Charters Granted in October.....	1905.11.34
Classified Directory of Local Unions.....	1905.11.53
Convention Expenses.....	1905.11.39
Curious Savings, useful facts.....	1905.11.21
Editorial by the new Grand Secretary Collins.....	1905.11.26
Fake Union Label on Brooms to Deceive Unionists.....	1905.11.11
Fortunes Made by Inventions, various examples.....	1905.11.43
How the New Style Traveling Card System Will Work.....	1905.11.36
Influence of Trade Unions on Immigrants, Chicago Police Commissioner.....	1905.11.47
Information Given—Wanted.....	1905.11.38
Income and Expenses of IBEW to be mailed quarterly to local unions.....	1905.11.34
<i>In Memoriam</i>	1905.11.22
Killing Pests by Electricity, 110 volt dynamo brings pests above ground.....	1905.11.38
L.U. Directories to be Published in Pocket Format.....	1905.11.35
L.U. 45.....	1905.11.18
L.U. 69.....	1905.11.12
L.U. 93.....	1905.11.16
L.U. 96.....	1905.11.13
L.U. 130.....	1905.11.14
L.U. 163.....	1905.11.15
L.U. 166.....	1905.11.18
L.U. 187.....	1905.11.17
L.U. 192.....	1905.11.16
L.U. 205.....	1905.11.16
L.U. 246.....	1905.11.12
L.U. 251.....	1905.11.16
L.U. 450.....	1905.11.17
Masthead.....	1905.11.34
Microscope that Shows Things Solid, stereoscope vision by Zeiss.....	1905.11.25
Millions Made Through Inventions, sometimes accidental discoveries.....	1905.11.20
Ninth Convention Proceedings to be mailed to each L.U.....	1905.11.35
Not a Leaders' Agitation, the labor movement is an uprising.....	1905.11.33
Open Shop, The, union will have conflicts, <i>Typographical Journal</i>	1905.11.32
Organization, values of a union, <i>Dayton Reporter</i>	1905.11.31
Practical Information on Central Station Meters, cash then electricity.....	1905.11.45
Report of Grand President.....	1905.11.05
Reports of Grand Vice Presidents.....	1905.11.05
Report of Special Auditing Committee to be Sent to L.U.'s.....	1905.11.34
Sending a Spoken Letter by Mail, Sonoride is durable enough for mail.....	1905.11.25
Traveling Cards Issued by Delinquent L.U.'s Will Not be Honored.....	1905.11.35
Tri-State District Council, bylaw vote postponed to December 17.....	1905.11.18
Valuation, brother relates union life, L.U. 69.....	1905.11.16
Workingmen in Temperance, the evils of drink are exposed, you choose.....	1905.11.29